

## SEQUENCE LISTING

<110> and Eliza Hall Institute of Medical Research

<120> Modified cells and methods of using same

<130> 21055

<140> 10/589,321 <141> 2006-08-14

<150> AU 2004900673

2004-02-12 <151>

<160> 6

<170> PatentIn version 3.1

<210> <211> 2571

:212> DNA

murine

<400> atgagagagg cttatctcag atgttggatc ttctcttgga aaaacgtgtg ggtacgacct 60 tgccaaaggc tgcattttaa aaccgtgctt cttcaaggca gtctacttta cacggctttg 120 gactettaet caactgtaca agetgeeece aagtetaget eeggeteegt gaagttteaa 180 ggactggcag agactgggat catgaaaatg gacatggagg acgctgatat gactttgtgg 240 acagaggccg agtttgaaga gaagtgtaca tacatagtga acgaccaccc ctggqattcc 300 ggcgctgacg ggggtacttc tgttcaagcc gaggcatcct taccaaggaa cctqcttttc 360 aagtatgctg ccaacaacag caaagaggtt attggcgtgg taagtaagga gtacataccg 420 aagggaacac gctttggacc cctcatcggt gaagtctaca ctaatgacac agttcccaag 480 aatgccaaca ggaagtattt ttggcggatc tattccagaq aqqaqttcca ccacttcatt 540 gatggcttta atgaggagaa aagcaactgg atgcgctacg tgaatccagc tcactctqcc 600 Cgggagcaaa acctggctgc ctgtcagaac gggatgaaca tctacttcta cactattaag 660 cctatccctg ccaaccagga acttcttgtg tggtattgtc gggactttgc ggagaggctc 720 cactaccett atcctggaga geteacagtg ataaatetea cacaaacgga aagcaaccea 780 aagcaataca gtagtgagaa aaatgaactc tacccaaaga gtgtccccaa gagagagtac 840 agcgtgaaag aaattctaaa actggactcc aatccctcca aaaggaagga catctaccgt 900 tccaacattt cacccttcac tttagaaaag gacatggatg gctttcggaa aaatgggagc 960 CCCgacatgc Ccttctaccc tcgggtggtt tatcctatcc gggcacctct gccagaagac 1020 tttttgaaag cgtccctggc ctatgggatg gagagaccca cctacataac tcacagtccc 1080

```
cttccgtctt ccacaactcc aagtccccct gcgagcagca gcccggagca gagccttaag
                                                                     1140
agctccagcc cccacagcag cccgggaaac acggtgtcac ccctggcgcc aggcctccca
                                                                     1200
gaacaccggg actcctactc ctacttgaat gtttcctatg gttccgaggg cctgggctcc
                                                                     1260
taccctggct atgcacctgc ccccacctc ccaccagctt tcattccttc ttacaatgct
                                                                     1320
cactacccca agttcctgtt gccaccgtac ggcattagtt ccaatggctt gagcaccatg
                                                                    1380
aacaacatca atggtatcaa caacttcagc ctcttcccta ggttgtatcc cgtctacagt
                                                                     1440
aacctcctta gtggcagcag cctgcctcat cccatgctca atccagcttc cctaccgagt
                                                                     1500
tccctgccta ccgatggagc ccggaggctg cttccaccgg agcaccccaa agaggtgctt
                                                                     1560
atcccagcac cccacagtgc cttctccctt accggggctg cagccagcat gaaggacgag
                                                                     1620
agtagtcccc ccagcggatc tccaacggcg ggaactgcag ccacqtcaga acacqtqqta
                                                                     1680
caacccaaag ctacctcatc agtgatggcg gcccccagca ctgacggagc catgaatctc
                                                                     1740
attaaaaaca aacgaaacat gactggttac aagactcttc cttaccctct gaagaaacag
                                                                     1800
aatggcaaga tcaagtatga gtgcaatgtc tgtgccaaga cgttcggtca gctctccaac
                                                                     1860
ctgaaggtcc acctgagagt gcacagtgga gaacggcctt tcaagtgcca gacctgcaac
                                                                     1920
aagggtttta ctcagctcgc ccacctgcag aaacactact tggtacacac aggagagaag
                                                                     1980
ccacatgagt gccaggtctg ccacaagaga tttagcagca caagcaatct caagacccac
                                                                     2040
cttcgattgc attctggaga aaaaccttac caatgtaagg tgtgccctgc caagtttacg
                                                                     2100
caatttgtgc acctgaagct gcacaagcga ctgcataccc gggagcggcc tcacaagtgt
                                                                     2160
gcccagtgtc acaagagcta catccatctc tgcagcctca aggtccacct gaagggcaac
                                                                     2220
tgccctgcgg gcccagctgc tgggctgcct ttggaggatc tgacccgaat caatgaagaa
                                                                     2280
attgagaggt tcgacatcag cgacaatgca gaccgtcttg aggacatgga ggacagtgtc
                                                                     2340
gatgtgacct ccatggtgga gaaggagatt ctagctgtgg tcagaaaaga gaaagaagaa
                                                                     2400
accagtctga aagtgtcttt gcaaagaaac atggggaacg gcctcctctc ctcagggtgc
                                                                     2460
agcctctatg agtcatcgga cctgtccctc atgaagttgc ctcacagcaa cccactacct
                                                                     2520
ctggtgcctg taaaggtcaa acaagaaaca gttgaaccga tggatcctta a
                                                                     2571
```

<400> 2

Met Arg Glu Ala Tyr Leu Arg Cys Trp Ile Phe Ser Trp Lys Asn Val 1 5 15

Trp Val Arg Pro Cys Gln Arg Leu His Phe Lys Thr Val Leu Leu Gln 20 25 30

<sup>&</sup>lt;210> 2 <211> 856 <212> PRT <213> murine

Gly Ser Leu Leu Tyr Thr Ala Leu Asp Ser Tyr Ser Thr Val Gln Ala Ala Pro Lys Ser Ser Ser Gly Ser Val Lys Phe Gln Gly Leu Ala Glu 50 60Thr Gly Ile Met Lys Met Asp Met Glu Asp Ala Asp Met Thr Leu Trp 65 70 75 80 Thr Glu Ala Glu Phe Glu Glu Lys Cys Thr Tyr Ile Val Asn Asp His 85 90 95 Pro Trp Asp Ser Gly Ala Asp Gly Gly Thr Ser Val Gln Ala Glu Ala 100 105 110 Ser Leu Pro Arg Asn Leu Leu Phe Lys Tyr Ala Ala Asn Asn Ser Lys 115 120 125 Glu Val Ile Gly Val Val Ser Lys Glu Tyr Ile Pro Lys Gly Thr Arg 130 135 140 Phe Gly Pro Leu Ile Gly Glu Val Tyr Thr Asn Asp Thr Val Pro Lys 145 150 155 160 Asn Ala Asn Arg Lys Tyr Phe Trp Arg Ile Tyr Ser Arg Glu Glu Phe 165 170 175 His His Phe Ile Asp Gly Phe Asn Glu Glu Lys Ser Asn Trp Met Arg 180 185 190 Tyr Val Asn Pro Ala His Ser Ala Arg Glu Gln Asn Leu Ala Ala Cys 195 200 205 Gln Asn Gly Met Asn Ile Tyr Phe Tyr Thr Ile Lys Pro Ile Pro Ala 210 215 220 Asn Gln Glu Leu Leu Val Trp Tyr Cys Arg Asp Phe Ala Glu Arg Leu 225 230 235 240 His Tyr Pro Tyr Pro Gly Glu Leu Thr Val Ile Asn Leu Thr Gln Thr 245 250 255 Glu Ser Asn Pro Lys Gln Tyr Ser Ser Glu Lys Asn Glu Leu Tyr Pro 260 265 270 Lys Ser Val Pro Lys Arg Glu Tyr Ser Val Lys Glu Ile Leu Lys Leu 275 280 285 Asp Ser Asn Pro Ser Lys Arg Lys Asp Ile Tyr Arg Ser Asn Ile Ser 290 295 300

Pro Phe Thr Leu Glu Lys Asp Met Asp Gly Phe Arg Lys Asn Gly Ser 305 310 315 Pro Asp Met Pro Phe Tyr Pro Arg Val Val Tyr Pro Ile Arg Ala Pro 325 330 335 Leu Pro Glu Asp Phe Leu Lys Ala Ser Leu Ala Tyr Gly Met Glu Arg 340 345 350 Pro Thr Tyr Ile Thr His Ser Pro Leu Pro Ser Ser Thr Thr Pro Ser 355 360 365 Pro Pro Ala Ser Ser Ser Pro Glu Gln Ser Leu Lys Ser Ser Ser Pro 370 380 His Ser Ser Pro Gly Asn Thr Val Ser Pro Leu Ala Pro Gly Leu Pro 385 390 395 Glu His Arg Asp Ser Tyr Ser Tyr Leu Asn Val Ser Tyr Gly Ser Glu 405 410 415 Gly Leu Gly Ser Tyr Pro Gly Tyr Ala Pro Ala Pro His Leu Pro Pro 420 425 430 Ala Phe Ile Pro Ser Tyr Asn Ala His Tyr Pro Lys Phe Leu Leu Pro 435 440 445 Pro Tyr Gly Ile Ser Ser Asn Gly Leu Ser Thr Met Asn Asn Ile Asn 450 455 460 Gly Ile Asn Asn Phe Ser Leu Phe Pro Arg Leu Tyr Pro Val Tyr Ser 465 470 475 480 Asn Leu Leu Ser Gly Ser Ser Leu Pro His Pro Met Leu Asn Pro Ala 485 490 495 Ser Leu Pro Ser Ser Leu Pro Thr Asp Gly Ala Arg Arg Leu Leu Pro 500 510 Pro Glu His Pro Lys Glu Val Leu Ile Pro Ala Pro His Ser Ala Phe Ser Leu Thr Gly Ala Ala Ala Ser Met Lys Asp Glu Ser Ser Pro Pro 530 540 Ser Gly Ser Pro Thr Ala Gly Thr Ala Ala Thr Ser Glu His Val Val 545 550 560 Gln Pro Lys Ala Thr Ser Ser Val Met Ala Ala Pro Ser Thr Asp Gly 565 570 575 Ala Met Asn Leu Ile Lys Asn Lys Arg Asn Met Thr Gly Tyr Lys Thr 580 585 590 Leu Pro Tyr Pro Leu Lys Lys Gln Asn Gly Lys Ile Lys Tyr Glu Cys 595 600 605 Asn Val Cys Ala Lys Thr Phe Gly Gln Leu Ser Asn Leu Lys Val His 610 615 620 Leu Arg Val His Ser Gly Glu Arg Pro Phe Lys Cys Gln Thr Cys Asn 625 635 640 Lys Gly Phe Thr Gln Leu Ala His Leu Gln Lys His Tyr Leu Val His Thr Gly Glu Lys Pro His Glu Cys Gln Val Cys His Lys Arg Phe Ser 660 665 670 Ser Thr Ser Asn Leu Lys Thr His Leu Arg Leu His Ser Gly Glu Lys 675 680 685 Tyr Gln Cys Lys Val Cys Pro Ala Lys Phe Thr Gln Phe Val His 690 695 700 Leu Lys Leu His Lys Arg Leu His Thr Arg Glu Arg Pro His Lys
705 710 715 Ala Gln Cys His Lys Ser Tyr Ile His Leu Cys Ser Leu Lys Val His 725 730 735 Leu Lys Gly Asn Cys Pro Ala Gly Pro Ala Ala Gly Leu Pro Leu Glu 740 745 750 Asp Leu Thr Arg Ile Asn Glu Glu Ile Glu Arg Phe Asp Ile Ser Asp 765 Asn Ala Asp Arg Leu Glu Asp Met Glu Asp Ser Val Asp Val Thr Ser 770 775 780 Met Val Glu Lys Glu Ile Leu Ala Val Val Arg Lys Glu Lys Glu Glu 785 790 795 800 Thr Ser Leu Lys Val Ser Leu Gln Arg Asn Met Gly Asn Gly Leu Leu 805 Ser Ser Gly Cys Ser Leu Tyr Glu Ser Ser Asp Leu Ser Leu Met Lys 820 825 830 Leu Pro His Ser Asn Pro Leu Pro Leu Val Pro Val Lys Val Lys Gln Glu Thr Val Glu Pro Met Asp Pro 850 855

<210> 3 <211> 2370 <212> DNA <213> human

<400> atgaaaatgg acatggagga tgcggatatg actctgtgga cagaggctga gtttgaagag 60 aagtgtacat acattgtgaa cgaccacccc tgggattctg gtgctgatgg cggtacttcg 120 180 gttcaggcgg aggcatcctt accaaggaat ctgcttttca agtatgccac caacagtgaa gaggttattg gagtgatgag taaagaatac ataccaaagg gcacacgttt tggaccccta 240 ataggtgaaa tctacaccaa tgacacagtt cctaagaacg ccaacaggaa atattttgg 300 aggatctatt ccagagggga gcttcaccac ttcattgacg gctttaatga agagaaaagc 360 aactggatgc gctatgtgaa tccagcacac tctccccggg agcaaaacct ggctgcgtgt 420 cagaacggga tgaacatcta cttctacacc attaagccca tccctgccaa ccaggaactt 480 cttgtgtggt attgtcggga ctttgcagaa aggcttcact acccttatcc cggagagctg 540 acaatgatga atctcacaca aacacagagc agtctaaagc aaccgagcac tgagaaaaat 600 gaactctgcc caaagaatgt cccaaagaga gagtacagcg tgaaagaaat cctaaaattg 660 gactccaacc cctccaaagg aaaggacctc taccgttcta acatttcacc cctcacatca 720 gaaaaggacc tcgatgactt tagaagacgt gggagccccg aaatgccctt ctaccctcgg 780 gtcgtttacc ccatccgggc ccctctgcca gaagactttt tgaaagcttc cctggcctac 840 gggatcgaga gacccacgta catcactcgc tcccccattc catcctccac cactccaagc 900 ccctctgcaa gaagcagccc cgaccaaagc ctcaagagct ccagccctca cagcagccct 960 gggaatacgg tgtcccctgt gggccccggc tctcaagagc accgggactc ctacgcttac 1020 1080 ttgaacgcgt cctacggcac ggaaggtttg ggctcctacc ctggctacgc acccctgccc cacctcccgc cagctttcat cccctcgtac aacgctcact accccaagtt cctcttgccc 1140 ccctacggca tgaattgtaa tggcctgagc gctgtgagca gcatgaatgg catcaacaac 1200 tttggcctct tcccgaggct gtgccctgtc tacagcaatc tcctcggtgg gggcagcctg 1260 CCCCACCCCA tgctcaaccc cacttctctc ccgagctcgc tgccctcaga tggagcccgg 1320 aggttgctcc agccggagca tcccagggag gtgcttgtcc cggcgcccca cagtgccttc 1380 tcctttaccg gggccgccgc cagcatgaag gacaaggcct gtagccccac aagcgggtct 1440 cccacggcgg gaacagccgc cacggcagaa catgtggtgc agcccaaagc tacctcagca 1500 gcgatggcag cccccagcag cgacgaagcc atgaatctca ttaaaaacaa aagaaacatg 1560 1620 accggctaca agacccttcc ctacccgctg aagaagcaga acggcaagat caagtacgaa

6

tgCaacgttt gcgccaagac tttcggccag ctctccaatc tgaaggtcca cctgagagtg 1680 1740 cacagtggag aacggccttt caaatgtcag acttgcaaca agggctttac tcagctcgcc cacctgcaga aacactacct ggtacacacg ggagaaaagc cacatgaatg ccaggtctgc 1800 1860 Cacaagagat ttagcagcac cagcaatctc aagacccacc tgcgactcca ttctggagag 1920 aaaccatacc aatgcaaggt gtgccctgcc aagttcaccc agtttgtgca cctgaaactg 1980 Cacaagcgtc tgcacacccg ggagcggccc cacaagtgct cccagtgcca caagaactac 2040 atccatctct gtagcctcaa ggttcacctg aaagggaact gcgctgcggc cccggcgcct gggctgccct tggaagatct gacccgaatc aatgaagaaa tcgagaagtt tgacatcagt 2100 gacaatgctg accggctcga ggacgtggag gatgacatca gtgtgatctc tgtagtggag 2160 aaggaaattc tggccgtggt cagaaaagag aaagaagaaa ctggcctgaa agtgtctttg 2220 caaagaaaca tggggaatgg actcctctcc tcagggtgca gcctttatga gtcatcagat 2280 ctacccctca tgaagttgcc tcccagcaac ccactacctc tggtacctgt aaaggtcaaa 2340 2370 caagaaacag ttgaaccaat ggatccttaa

## <400> 4

Met Lys Met Asp Met Glu Asp Ala Asp Met Thr Leu Trp Thr Glu Ala 1 10 15

Glu Phe Glu Glu Lys Cys Thr Tyr Ile Val Asn Asp His Pro Trp Asp 20 25 30

Ser Gly Ala Asp Gly Gly Thr Ser Val Gln Ala Glu Ala Ser Leu Pro 35 40 45

Arg Asn Leu Leu Phe Lys Tyr Ala Thr Asn Ser Glu Glu Val Ile Gly 50 60

Val Met Ser Lys Glu Tyr Ile Pro Lys Gly Thr Arg Phe Gly Pro Leu 65 70 75 80

Ile Gly Glu Ile Tyr Thr Asn Asp Thr Val Pro Lys Asn Ala Asn Arg 85 90 95

Lys Tyr Phe Trp Arg Ile Tyr Ser Arg Gly Glu Leu His His Phe Ile  $100 \hspace{1cm} 105 \hspace{1cm} 110$ 

Asp Gly Phe Asn Glu Glu Lys Ser Asn Trp Met Arg Tyr Val Asn Pro 115 120 125

<sup>&</sup>lt;210> 4

<sup>&</sup>lt;211> 789

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> human

Ala His Ser Pro Arg Glu Gln Asn Leu Ala Ala Cys Gln Asn Gly Met 130 135 140 Asn Ile Tyr Phe Tyr Thr Ile Lys Pro Ile Pro Ala Asn Gln Glu Leu 145 150 155 160 Leu Val Trp Tyr Cys Arg Asp Phe Ala Glu Arg Leu His Tyr Pro Tyr 165 170 175 Pro Gly Glu Leu Thr Met Met Asn Leu Thr Gln Thr Gln Ser Ser Leu 180 185 190 Lys Gln Pro Ser Thr Glu Lys Asn Glu Leu Cys Pro Lys Asn Val Pro 195 200 205 Lys Arg Glu Tyr Ser Val Lys Glu Ile Leu Lys Leu Asp Ser Asn Pro 210 215 220 Ser Lys Gly Lys Asp Leu Tyr Arg Ser Asn Ile Ser Pro Leu Thr Ser 225 230 235 240 Glu Lys Asp Leu Asp Asp Phe Arg Arg Gly Ser Pro Glu Met Pro 245 250 255 Phe Tyr Pro Arg Val Val Tyr Pro Ile Arg Ala Pro Leu Pro Glu Asp 260 265 270 Phe Leu Lys Ala Ser Leu Ala Tyr Gly Ile Glu Arg Pro Thr Tyr Ile 275 280 285 Thr Arg Ser Pro Ile Pro Ser Ser Thr Thr Pro Ser Pro Ser Ala Arg 290 295 300 Ser Ser Pro Asp Gln Ser Leu Lys Ser Ser Ser Pro His Ser Ser Pro 305 310 315 320 Gly Asn Thr Val Ser Pro Val Gly Pro Gly Ser Gln Glu His Arg Asp 325 330 335 Ser Tyr Ala Tyr Leu Asn Ala Ser Tyr Gly Thr Glu Gly Leu Gly Ser 340 350 Tyr Pro Gly Tyr Ala Pro Leu Pro His Leu Pro Pro Ala Phe Ile Pro 355 360 365 Ser Tyr Asn Ala His Tyr Pro Lys Phe Leu Leu Pro Pro Tyr Gly Met 370 380 Asn Cys Asn Gly Leu Ser Ala Val Ser Ser Met Asn Gly Ile Asn Asn 385 395 400

Phe Gly Leu Phe Pro Arg Leu Cys Pro Val Tyr Ser Asn Leu Leu Gly 405 410 Gly Gly Ser Leu Pro His Pro Met Leu Asn Pro Thr Ser Leu Pro Ser Ser Leu Pro Ser Asp Gly Ala Arg Arg Leu Leu Gln Pro Glu His Pro 435 440 445 Arg Glu Val Leu Val Pro Ala Pro His Ser Ala Phe Ser Phe Thr Gly 450 460 Ala Ala Ser Met Lys Asp Lys Ala Cys Ser Pro Thr Ser Gly Ser 465 470 475 480 Pro Thr Ala Gly Thr Ala Ala Thr Ala Glu His Val Val Gln Pro Lys 485 490 495 Ala Thr Ser Ala Ala Met Ala Ala Pro Ser Ser Asp Glu Ala Met Asn 500 510 Ile Lys Asn Lys Arg Asn Met Thr Gly Tyr Lys Thr Leu Pro Tyr 515 520 525 Pro Leu Lys Lys Gln Asn Gly Lys Ile Lys Tyr Glu Cys Asn Val Cys 530 540 Ala Lys Thr Phe Gly Gln Leu Ser Asn Leu Lys Val His Leu Arg Val 545 550 560 His Ser Gly Glu Arg Pro Phe Lys Cys Gln Thr Cys Asn Lys Gly Phe 565 570 575 Thr Gln Leu Ala His Leu Gln Lys His Tyr Leu Val His Thr Gly Glu 580 585 590 Lys Pro His Glu Cys Gln Val Cys His Lys Arg Phe Ser Ser Thr Ser 595 600 605 Asn Leu Lys Thr His Leu Arg Leu His Ser Gly Glu Lys Pro Tyr Gln 610 620 Cys Lys Val Cys Pro Ala Lys Phe Thr Gln Phe Val His Leu Lys Leu 625 635 640 His Lys Arg Leu His Thr Arg Glu Arg Pro His Lys Cys Ser Gln Cys 645 650 655 His Lys Asn Tyr Ile His Leu Cys Ser Leu Lys Val His Leu Lys Gly

Asn Cys Ala Ala Ala Pro Ala Pro Gly Leu Pro Leu Glu Asp Leu Thr 675 680 685

Arg Ile Asn Glu Glu Ile Glu Lys Phe Asp Ile Ser Asp Asn Ala Asp 690 695 700

Arg Leu Glu Asp Val Glu Asp Asp Ile Ser Val Ile Ser Val Val Glu 705 710 715 720

Lys Glu Ile Leu Ala Val Val Arg Lys Glu Lys Glu Glu Thr Gly Leu 725 730 735

Lys Val Ser Leu Gln Arg Asn Met Gly Asn Gly Leu Leu Ser Ser Gly 740 745 750

Cys Ser Leu Tyr Glu Ser Ser Asp Leu Pro Leu Met Lys Leu Pro Pro 755 760 765

Ser Asn Pro Leu Pro Leu Val Pro Val Lys Val Lys Gln Glu Thr Val 770 775 780

Glu Pro Met Asp Pro 785

<210> 5 <211> 20894 <212> DNA

<213> murine

<220> <221> misc\_feature <222> (2935)..(3024)

<223> n is any nucleotide

<220>

<221> misc\_feature <222> (3125)..(3125)

<223> n is any nucleotide

<220>

<221> misc\_feature <222> (18390)..(18390)

<223> n is any nucleotide

<220>

<221> misc\_feature <222> (18519)..(18519)

<223> n is any nucleotide

<220>

<221> misc\_feature

<222> (18552)..(18552) <223> n is any nucleotide

<400> 5

			•			
gggggaagag	tagtcagtcg	ctcgctcact	cgctcgctcg	cacagacact	gctgcagtga	60
cactcggccc	tccagtgtcg	cggagacgca	agagcagcgc	gcagcacctg	tccgcccgga	120
gcgagcccgg	cccgcggccg	tagaaaagga	gggaccgccg	aggtgcgcgt	cagtactgct	180
cagcccggca	gggacgcggg	aggatgtgga	ctgggtggac	atgagagagg	cttatctcag	240
atgttggatc	ttctcttgga	aaaacgtgtg	ggtacgacct	tggtaaggaa	ccagattctg	300
tctttaatac	gatttgaaac	cttttatccc	tttttctttc	ttcctttttt	ttttaacttt	360
tcttttctcc	cccctcccc	ttttaaaaaa	aaaaaaagaa	tgaagcctca	gtagaaacca	420
gcgcttctgt	tttagtacgc	ggagcactgt	caaacattta	gaagactttt	ttcctccgta	480
tgaatcatta	accctttcag	ttctagacat	aattgtcaat	tcactgaaat	ttcagtagtg	540
gttcttgtcc	gcttcgccac	tcgctgcctt	tacattactg	taactatccc	gggttgactt	600
aggttttcac	ttgtatttaa	catcgtttgt	tccacatgga	ccttacatgt	tggaactaaa	660
taagaatgag	atagtttaag	ttgtacccgg	gacaaggaca	agtaagcatc	tttccccttc	720
tcggagcgtc	ctatctaggg	acgaattgta	aagaccagct	ccggagaggg	actcccgctg	780
tactgtgttt	acattttcac	aagcgcgcgt	tctaacatgg	ttatccttat	tcctaatttt	840
tatctgcggc	gtctatgtgg	gaatacgttg	cagaggctgt	tttatctttc	ttgcttttcc	900
tctttggaaa	ggactttttc	cgagggcaga	taagaggagg	atccccaagt	cttctgtata	960
actttagtta	cagtaaactg	tgccacttca	gtgacttctg	ggaattcatg	cactttcaca	1020
tttaaataga	aagtgctatt	tgtggctgag	ggctcctaaa	ggaattctct	tcagggaatt	1080
ctattgactt	tttttttaat	atgttttgtt	tttaattttt	ctatctggct	cgagatgccc	1140
acggattaaa	aaaacaaaca	aaactgctgg	gtgtttccct	cttccccaat	ttttcttttc	1200
ctgtggtcca	tgggagctcg	ggaaggctgg	tactcaagga	tgctggcagg	atgcaacccc	1260
tctcaggctt	gcctgctgga	ggatgaaaga	gactgaacgc	gcgcgcgcgc	gcggcagagg	1320
gaggggacct	agttgttttg	aaagttgctt	cgctagggag	ctggtgggaa	agttcagttt	1380
tccccatttg	gaaaaggcag	actgggttcc	gctcctgcac	cacacgtgtt	ttccattttt	1440
agcttcattc	agacgcaggc	agcgcccctg	cctcttcctc	cccttgtttg	tgacacttct	1500
ctgagacagc	ttttccacag	ctctgagggt	ctggcggcca	tgaccccggg	cgtcccggga	1560
cacaggacgc	agcagcgccc	acaacacatt	tctgccttga	gtgataaagc	caaggattgt	1620
tcaaaggtag	ctgttctttc	tctcccgatg	aggttaacat	atacatatac	gcttttttt	1680
ttttttcag	ccaaaggctg	cattttaaaa	ccgtgcttct	tcaaggcagt	ctactttaca	1740
cggctttgga	ctcttactca	actgtacaag	tactccaagc	ttttaaagtc	ttcagagcac	1800
cgtgttagtc	atagcctcta	agagggaggc	acaggagcgc	cggacaatgg	ggattaaaag	1860
cctttccctt	ctcttccagg	ctgcccccaa	gtctagctcc	ggctccgtga	agtttcaagg	1920
actggcagag	actgggatca	tgaaaatgga	catggaggac	gctgatatga	ctttgtggac	1980
agaggccgag	tttgaagaga	agtgtacata	catagtgaac 11	gaccacccct	gggattccgg	2040

2100 cgctgacggg ggtacttctg ttcaagccga ggcatcctta ccaaggaacc tgcttttcaa 2160 gtatgctgcc aacaacagca aagaggtaag ccggctgcct tcttgaagtc tgactggcaa ttgggccagc tctcctacta ctatctctga gaaccgtgag aatttatatg cattggcaaa 2220 2280 taattgatcg ctccagtggc tgttttcctt gctttctctt caaaccaatt cctattcatt tcttcctccc ttcagctgtc ctatactaat tagtaaacag ttaaattttt tggcaagttg 2340 2400 acatgtcttg ggaaagctaa ctggcagcac tggtgggcag catggtaaag ggctcagtgc ttCacccct ggccctcttg gatgacagtt ttaaaggaaa gaaacttcct tagaaaaaga 2460 agtttttcct ctgctcatga gatggcttta ttcttttaac gagccagctt tattagctgg 2520 2580 gtttctaaaa ttattctcaa aaccttgacg tgtttatgaa ctgaagagat ggcattaacc aggaagaggg tcacgtaaaa gtgtcctctg tcaggatgac ttcactaacc accctttacc 2640 2700 tgtggcagct ccctggcctg ggccaggccg gcaggtccat gttttatggc ttctgaagtg 2760 ggtacactct ttgtatcaaa gacacagaac acctgaggag cacctgattt gtgtttatat aacaattaga gtcggctgtg aagtgatttg caaaataact ccttgctctg agaatctggc 2820 tgctgcagtt gctctcctga tggcttaagt tgctgaggct agccctgagg agacttccca 2880 2940 ccatcaccat tgcccacagt gctgtggttt ctgatccttg ctgtctttgg ggagnnnnnn 3000 3060 nnnnnnnnn nnnnnnnnn nnnnaaggag ggattctgtg ttgtaaggat tccagatttg 3120 ctcctaggac tatgcattat gaaagtgcca ggtcactttc ctccttccct aagcgacaac atggngaaag aaactccaga gttggggaaa cactgtctct ttcctgtttg tgtgtctcag 3180 ttcagggttt ggggggggaa ggagggaggt ggcaaagacc gagagctaaa cttaaagaga 3240 ggaattctac cttgtgtttc actaaagctc cactctttgt tctatttctg atgggagact 3300 3360 tatttgtttt atgaaaagca aattttaaat tgtagtttgt gtataaatac caccaaaaaa 3420 aattgtaacc ccagaggtca cccttaatta tacctctttc tgaaaacaat gttcttctca acagaaagcc tctgagtatg taacccgtgg agtcaatgtg gcgtttgttt gggtatttga 3480 ggtctggctg tggctttaaa aggtgtagtg tgttctcccc ccatcagatt tgcctaaata 3540 3600 ttggtccctt caaaaagggc cattcatgtc ctgttgtctc tgtagcctgt tgggatagaa ataaagactc ctggtttttt gtcatcggct ctgttctcct tcagagtcct tctcagctca 3660 gccctataaa gttttcaat ttttgttgtt ctactgaaaa ctatggctga acggagttat 3720 gctattagat catttagttc aaggttcaga tagtcaactt ccccgaaggc tagagttaca 3780 gccaggccca gactgggagc aaagttctct gattgctcca ggtgtttcta gatcatgcta 3840 3900 ctctggtccc tcttggtgtc actgtggctt tatttatctt agcataattc aggcacagct tttcactaag cctgtttgat tctgtttctt ttctgctgaa ttccttccca tctctgtatg 3960 ttaagcaacc agaaagaggc agctcttgtg tttctgacag ggtgcccttc acaacacaca 4020

gaaagtcagg	gttctttgag	cctactctat	gttttaccga	aagaaaagtc	aaatcgttgt	4080
ggtagcacct	cttcggtcct	caatcatgaa	agccaccagg	aaacaaaatt	taagcatcat	4140
cctatcctaa	gcatacacca	aaatgtgggc	ctgtttttcc	cttctctcca	gcgccttctg	4200
ttttgaactt	tgggacaggt	cccttggggt	ggtgaaagag	aaggacagaa	ttgagccatt	4260
gagggtgtga	tagctgcaaa	ccagttccag	gccagaagca	tctaggatgg	aggaagtgtt	4320
tacattacca	ttgttcagtt	agttcggtga	gttccatgag	ctgtagaaac	agggaaaggc	4380
ctttctacgg	gtagctttta	tctgactgat	ctggcttgcc	catctttaaa	tgttttcatt	4440
aaaatagcaa	aagctgttac	tttatgtact	gtgtgctgac	atcctgggga	ctttttttt	4500
aaaaaaaaa	aaaacaagat	catttttcat	tatgaatttg	tgctatgtgt	cagcaccttc	4560
ccacccccac	ccccaccccc	ttgatttaaa	aacaaaacat	gcaaactgta	tttctgatct	4620
taacatcaat	ttttagctct	ggctcagaat	cattctgttc	ttttattggg	gccgtttgat	4680
cattcttact	tcctatttcc	agatctaaaa	ccaagtacaa	gcacactctt	caaaactttt	4740
agaacgttta	accgggtggg	ttcttcttcc	gtgggatttc	cccctcgtcc	tcctgaaata	4800
atctctgaat	atttgactgc	attaaaaaaa	aatcagtttt	gacattggga	gagcagtatc	4860
caggacaact	ttctgctgtc	agctgaggtg	gcttgtcctc	aggcactgtg	tggctcctct	4920
gactctggtc	tgaagttgag	tggtgacaaa	catcaggcag	atctagggac	atggtgtcca	4980
ttctgattga	agtccattat	taaattgagc	catctgtatg	gaatctcagc	acaacatgca	5040
attccacctc	cggacttttt	tatttggtag	tatgtgccag	agtgccacca	catctccctt	5100
cacataaaga	taacacgaag	caggagacct	ttcaaaaaca	cctgctaatt	cctttgaaaa	5160
ctggactgaa	gtacagactt	gatatctcgg	tctataccct	tatagtaaaa	atacaggaaa	5220
ggaaatctaa	ttgttgggcg	agatttgggg	aggggaaaaa	cagcaagtaa	ttaaagtaac	5280
cttaatttga	agtgaggaaa	ctcaggccac	ttttggaact	gaatagtgtc	tcctttcaaa	5340
tcccctgct	ttctactggg	ctcctatatc	gaacactctc	taaatggctg	tttgttttga	5400
aagcaaacaa	acagacctat	gctgccctta	tcatccgact	ttcattctgt	actcccactc	5460
ccactcactc	catcctgcac	tgtaggaatc	tttcttttct	aaagttaaaa	agaagctctg	5520
ctttttgtct	ctgagctcca	gtttgtgtcc	tatagccaaa	gccactgaca	gagacagatg	5580
tgcccaggtg	gcagaggggt	cggctccgca	agtcaagcaa	gccatgaaga	gcttccgtgg	5640
ggctgaagca	tgggcagcct	aaggaggcct	ctttctcttc	ctgatgggtg	tagggaaggc	5700
acacagcagc	cagtccccag	gagtaattct	ttaggaccct	ggtcagttcc	agtgaagttt	5760
ctttcctcag	ttaggtgagc	acactcttgg	tctttttagc	agtgtgcaac	tcaaagcaca	5820
ggtcaagttt	ctctgtgccc	tctgcttgtt	cctagggtag	ggcactgtaa	acaatgggtt	5880
aggaagatgg	gttgggctaa	gacactcatc	tggatcagtt	tcctgctttc	cattaagaac	5940
aaccctggct	cttaccccca	tcctaagaca	ccccacaatc	accataacct	tagagccgca	6000
gtttctatgt	cttctttgat	taaggaatca	gacatggatt	agacgtgaag	gtgtttattg	6060

tgtgttgtta gcatgctgaa cttgagatgg ctataggtgg tttatttgat gttcttttt 6120 ctgagataga atcttgagat gtctgtagtc ggaatgcagg ccacaagctg ctgatcttcc 6180 tgcatgctat gattagaggc atgcaccaca ccacacctag tgagacaggt gatttcgaag 6240 ctacagggtt cctctaacct cagaatgctg aattgtgtgt ctctgtttac ctatcagtgt 6300 gaatttcctc gtgttcttca gctctgtgta tagtaggaat tttaaatatc aaggtcctat 6360 tgtactcata aaaacaatct aatattgcat tttggtctgg ttatatttcc cagactgacc 6420 ttggactcaa taatctcttg cctctgcctc agagtggctg ggacttgaag ccaccccaga 6480 atttctggtt actccttttt ctctcattca catgacttgt ctgttgagtt gcatttgtaa 6540 ggttaaagat ggcaggcgct ccaaacactg acttaaacag ctacagtgcc aactccatag 6600 ttgtgcctaa aaggtcctag atagcttgta ccttctttct ttttctcccc cccccccc 6660 ccaagattct aaataacttc cttttggcca caggacaatg tgttttgtta gcgttaaaat 6720 cggtaggtga aaaccaagcg tctcttctgt agagagaatg gcaatctgga agggaagctg 6780 tgacctcatt gtactgctcc ttgttggtaa tcaagctctg actcccaaga aactgtgcgc 6840 aggaggctat aatttaaaac aaagttgatg aaccagtcga gtgcctttct taaaattact 6900 gctttaaagt ggatatgttg aaattatcag ctgctaatta ttggctccct gacaaatggc 6960 attatttgtt tttcctgctt ggcattttaa tattatggaa taagcattca aatgtaaatg 7020 tctaataatt tgtgtattat agaagacaat tccatggatt ttacagagtg ggttcaataa 7080 ttcacccgaa caagcctggg accggaaagt gtagtcaagc attctgtgta aaaatttatc 7140 tccagagtct ctgctctgag atactcttgt tcccccaaag ctaggctacc agcagacacc 7200 accaatgagg aggtgtcttg gaagcataga caggtgtgac gagggcagag gaggagacga 7260 acatctgctt tcttcagacc tttgccacaa attcaaacag gaccaaaaat aacaccttta 7320 actcaacgaa tctgtttcga attgtgctgg atatagagaa tttctcctct cccctttcct 7380 gtcttaagaa tgccctgtta acatgtattg aatattaaat tatttaacaa aatggcatct 7440 gacgataaaa ggacacctgt catgagagtg gcctgtcccc actcttcatg tgtgtttatt 7500 ccacactaga cccgagtttt aactatggat gaggctggat accagtgtgt atcacagtcc 7560 7620 aagtctcaga tttccactca aactacctga agagacattg atttgcttct ctgcacctac cattcaggaa tataatcata ggagaaccgt caacaaaaaa agccaagtaa agataaatgc 7680 tgtgcattgc cttgccctgg ctcacctgcc actgtgaaag gggtacagag tcactctggg 7740 ctcatttgaa ttacttcctg gtttgtgtct gagttgtgtt gttattttt ttttttt 7800 gataccgtaa aaagaaagtt atgctcaagg aagaatgcca tagttaatgt gtttcttcag 7860 caaaccccac agagtcagag tgtgtgaggc cttcagtttg aaaaggtcat ttcctcagat 7920 cttagaagcc acatctttta gaacccacag tctcattaca tattccattt caaagaggga 7980 cttctgacca ccattgagta gatgttggag aagaacaaag ttacttgaaa gatctttcta 8040

gtaaagagcc	cttatgagct	ataagccaaa	ggggatggag	atgtcaactg	gaattttaaa	8100
aaaacaacaa	aaaccttaat	gtgtttggtt	tctggttccc	tcggcctcta	tggaacagct	8160
aaagagcatt	attttggttt	ctgaggttaa	aactcttgca	ttttcctcaa	gcatggtgtt	8220
tatggtttga	gggagaagac	tggaactagg	gaactgaggg	cagtaatctt	gaccccctct	8280
ctctctct	ctctctct	ctctctctct	ctctctct	gccttctgat	tctcttagaa	8340
cggaacatct	tctggtcttc	caacatgaga	ggccatagag	ccgagtcagt	cactagaaag	8400
cagtccgtcc	ccgggactat	ttcagtttca	gcacttggat	gactgtaaac	gatgactgtc	8460
acgaagctta	cggctaactg	tggaggcatg	gatggtgccg	tgctgggtta	tcaattgaca	8520
gttcaattca	ctcagctagc	tagcttgcca	tctcagagtc	tgactaatga	cctcatattt	8580
ttttttccc	ctttaggtta	ttggcgtggt	aagtaaggag	tacataccga	agggaacacg	8640
ctttggaccc	ctcatcggtg	aagtctacac	taatgacaca	gttcccaaga	atgccaacag	8700
gaagtatttt	tggcgggtaa	gtaagaaaac	ctttttttta	agacttttca	ctataggggg	8760
taaatggagc	ttaaagaaca	ggctcagttc	cctttcaaca	cagcagggct	cacccaggga	8820
aacactggaa	ttctgagcaa	gttccctaga	actggttaaa	cgctctgcct	agaatattag	8880
ctggaggtgg	ttagatgtgg	actacctgtg	aatctcaatt	tttgcaactc	attgcataca	8940
ggtctgggag	ggaaggaaac	agtttgccgc	ttgcttcaag	ggcaggctca	tttgcatttc	9000
tcttcgagga	agtagtaatg	agtcacggag	acttacattt	caccctttct	tgatttcttg	9060
ctgagttaac	ttcatttgaa	tggaagagtt	atcctgagtg	aacttgatgt	cgaagacaaa	9120
tgtcactaag	agaggtagat	ggtgggttag	tggaactggg	aaggatcatg	gagctagttt	9180
tatttaaatc	catctgcacc	ataaaacggt	tacatttgac	agtatcatag	ttgttaagca	9240
tgaggaaaat	cctcgtgtgc	ctatgagatt	gtagactcag	gtagaataac	tattctaaag	9300
gtctggccta	tgctatctcc	tttggagtgt	cagggttagc	gaggattctg	aggtgacctg	9360
ggagatggga	ttcatgggta	aaaattgttc	tctgagatgt	ctctggcatg	ttcagttttc	9420
ctcagtgtag	aaatgaagag	ctatttatac	aaatttagtg	agctgttttc	ctcacacaga	9480
catgaaatat	acaccaccca	gagaaatggt	aatatccaca	actggattac	atgagaaaaa	9540
gactttggtt	aaaaaattac	ttattcctga	gagagtctgt	cttcagctag	gaagtctttg	9600
tttccagaaa	cgtactactt	ctacaactgc	atctgtagtc	ttgttaagta	tttgttctca	9660
atttttattt	atttaatact	tagttggtgt	taaattatat	tgctccaaga	tcgcagtctg	9720
agattatgag	cggtttcgcc	cttattgctg	ttctcagatg	ggagccacca	gtggtagatt	9780
aatcttggcc	tcagctggta	tgaatgaaga	caatccgaca	ctgtcgtttt	gaaaacggtc	9840
aagaagcacc	aaaggctctc	ccattactgt	ccccactgtc	ccatttaaag	atttacaaaa	9900
agaattagac	taaataacta	gaaggcttcc	cttgggagga	attatttaag	tcagttgtcc	9960
acatgcaagg	aagacaggaa	tgaatctttt	cacaggttgg	aagatcctga	tttgtcaagc	10020
aggaatagga	acatctctgt	gttgtgagga	atgaaaggtt 15	gtcatgcaaa	ttacacagtc	10080

agagatgctc aggttgagaa agcagtgaca tttcttgtaa ctgtagtatg aatcagcttg 10140 tgtttagtct tcttgatact ggatggaaag gctggtataa gtgtgccttt tacaaaagca 10200 10260 tgatgatagt ttcttggggt gcgtgtgact ttcacgacat ccaaggtcct tttttttaaa acaaggatac agtaaaccgt agccatgaaa ggcctactgg gatcggcaca ccctctgcta 10320 10380 gctgtttcca ccctggtgta agggcgatgg aaccccttgt tcctggaagt ttgcgcgtca gagtaaacaa acttgaaaac ccctcttgat agcagaatcc agtcggtctt gttacatttt 10440 10500 ctcttaacaa gatacaccgc ggaagctctc gcaggctgct ttgatgaagc cacacgcacc ccccacacac acacacac acacatacaa ttcacaggaa gtctctctta aaagaaactg 10560 attctgctgt ttactgcctg tgttaaaggg acagagttcc ttttttattt ctgataacgt 10620 tagagggaaa tacagaaacg ttcacacagc ctgtgtgtga ctaagaatac agcaaatagc 10680 cctgtagagc aaactccctg aggtgagcat ggaagcgccg tacctcttgg agactgtctt 10740 gtgtgtaaag agggctctct gctctgaagg aaggcggtgg ttcttcaagg agaggagctt 10800 ttctggagag gatgaggagt gagtctttga ccccttggtt tcagtaggag tgtatttctc 10860 ccctgctctt aactatgcct ttaaccaagc actctgagta cagctgtgag tcagaggtag 10920 cattgctgaa gaagaaccat atattttctt tctcttcttt ttccaaaaagg ccaaactcgt 10980 ggctcttgtg tgtgtagacc gtgtatgcca gcctcctcac agatatgggc aaatctctct 11040 11100 actccttttc aagagagagg cacagggtgg ccgcctgtgt ttaccaagag gaaaagttac ttctcgatag gctgtcaaac tttggcctcc gtgccagtgc ctcactctgt tatggcaggt 11160 gaagttcacc tttgccccac ccagtgtttc cacaaaaagg cagggttcca agtattcatc 11220 tgaacaagtg ttactgtggg actcagggtt gggggtggag gatgtttgca gagcctaagc 11280 cccgggcggg cggaggtgta ggaaacacaa gtacagaggc catagaaaaa aggtgagact 11340 cagtttgacg cagtcctctc ggctgctgtg cccagtgact caaagcacta gaagtcagca 11400 gagttggaac tctgggctga gcagagtcgc ctgatcgata ttcgctactg tagcaagagt 11460 acctctttat ggtagtttca cccactctcg gctgttgtta attggaatat tattattatt 11520 attattatta tittgctatc cactgccctc cccaacatga gaagaccata aaattgaaat 11580 ggaaaggtaa ctagcacaat gtgccctgtt tcctcccca tttctgctga ttcagcgtga 11640 gtcccaccgg atcagcaatg aggcctggag tcatgggtac agcgttggtt gctcgcctgt 11700 gttccttctg agccattcag ggaagcttcc cggtcgcttt gggctggccg gctgtctttc 11760 11820 acactgcatc tatcctctcc ttttgaacag atctattcca gagaggagtt ccaccacttc attgatggct ttaatgagga gaaaagcaac tggatgcgct acgtgaatcc agctcactct 11880 11940 gcccgggagc aaaacctggc tgcctgtcag aacgggatga acatctactt ctacactatt aagcctatcc ctgccaacca ggaacttctt gtgtggtatt gtcgggactt tgcggagagg 12000 ctccactacc cttatcctgg agagctcaca gtgataaatc tcagtaagtg gattccagac 12060

caaaaaaaaa aaaaaaa	aaat taaaaatgct	agtaatgtca	gttctgcccc	tgtgagctaa	12120
taacatgttg tctaatt	tata cggcttcgtc	atgtgttgga	ctaagtaggt	ggctttagct	12180
aagacgagga agaggaa	aaaa cattcttaa	tgtccctact	tcttattata	aaacataatc	12240
atcaaagata tacata	ttac atatattgta	taaaataacc	agtacagaat	gttgttttcg	12300
gaaagttgca ggaagaa	agta tatttccgat	tctaatttat	gcaagcggct	gtaggcacaa	12360
tcccaatggg tatggad	cctg tggaacaggo	cagctgcagt	cccttcctgc	tgtgctgggt	12420
cagagctttg agtttt	cact gaaatcttgt	gaagatacgt	gtgcctgtaa	agccatgatc	12480
taatgtggaa agctgti	tttc tagaaaaaa	aaaaaaact	gtcataattg	ttcaagtagt	12540
ctaagtgaat aacccta	aaga gatgtcatat	ctgagcttcc	ttccttatgg	taaaggggac	12600
tgatctcatc tttcaat	tcag gcttacggta	accgcctatc	tctttatctt	gacaaattct	12660
tgcttccttg ggtttat	taag cttttacttt	ttcttttctt	ctttttaaat	tttggctaaa	12720
gttactgtca tgcccto	ctag caagctttco	ctcttcagtc	agtctcaggt	agctttagga	12780
acaatttaag aataaaa	aaaa aaaaaattct	aacttctatt	ttaactcagg	gtgtgtgttc	12840
tgggttatac tgccgaa	atct tacagcactt	tttcaaatga	ccatcttccc	atgaaagcta	12900
aatgttgaag gtttaaa	aagt tttcatttta	atagtctctg	aaatttgagt	aaacatttcc	12960
agaaatctat agagagt	ttcc aagctagact	ttacccagtt	tctactcttc	agtctcattt	13020
gctttccctg gagacta	aaat gtagttcata	ttttaccact	gaagcactag	aaatattaat	13080
tttagtattt taactti	ttaa gaccaaggac	agtgtctcgc	tagccatgtt	cattctacaa	13140
tgcttgtgct ctcagga	aatt ttcagttttc	tgaaaatctt	agcttcagta	cctttcctgt	13200
aggctcacaa tatagto	gttt gtgcccgggc	cctcagctca	gcaacgtaca	cccttgagct	13260
aagcatggtg ggtaggt	tacc tgcccaatag	cagcaagccc	tctcctcgtg	tttgggtttg	13320
ctttgggtgt ttgtttg	yttt gtttgtttgt	ttatggacaa	ggtctcgtgc	tgcttaggtt	13380
cagttcagac ttgatg	tagt cagggaaagc	cttgagccac	tgtcacctcc	aaaatgctag	13440
gatcacaggc ctgtgc	cctc cccccacccc	tgcctcccac	catccccca	atgcctgttc	13500
cgagtgttta ctctttg	gtgt ccagaagtaa	gtttcattat	gctatgaaat	gacagctttg	13560
ctcttcagac accccc	ccc ttttgactga	tgcaggagtc	ttctgagggt	cacaggaaca	13620
cctcctttgt ctgacat	ttcc taggacagaa	agagagttaa	ccattcagct	gccgtgcaag	13680
gctcttgctc ctgattg	gtga aacctgttgg	cccaggtgtg	gccactgatg	actgacactc	13740
tgatcaggaa aatttc	cagc atttcatcag	gcctaatagg	cagatcgagt	gtccaagatg	13800
ggctgtgcta gatttc	agg cttaaagcac	aatagaggtc	tgtccagaat	ctccgtaagg	13860
acttccatca tggggtg	gcag gggatggaaa	cctaatgaaa	gaatgtaagt	ccccagaaat	13920
cacaaactga caggaaa	agag aagggagaga	ggaatgtgga	aaagaactgt	taaatttagc	13980
tcctggccct cccaaco	cttt ttggtaattt	ttttttctat	ctatctaact	aacccatcta	14040
gaaatcagtt gaccaaa	atta tagacttctg	aatgttaatc	tgctttctcg	gtttcagttg	14100

aaaacagact	ttgttttgcc	tactgcagaa	cttctaggtt	ctttcttgta	gtcttagggg	14160
tgcttattat	agatcgaaaa	tgtgagtcgg	cataattaag	ccattcagaa	ccttccaaag	14220
cagctcactc	ttgaaatgac	tctgtccgcc	tacagccatt	taagatttaa	gaacaaaaac	14280
agatcttgat	tttcttttc	atgttagctc	aagctgctaa	gtgggagagt	tagaaatgat	14340
atcagctcct	gtgattagtc	agctgctgaa	ggatgagttt	ttaaaaatgt	accttcatat	14400
acagtctata	atttccagct	gtaaagtatt	ttagagactg	acattttgct	gcggatattc	14460
cttcaggata	agttctcagc	ctggttgttt	gtttgtttgt	ttgtttgttt	tctgaagaca	14520
gagccaccaa	acgctaaatt	atgcatgtca	cggagaaaat	gaaaagctct	gacttcattg	14580
tttcttggtt	cagtcattag	cttcacagta	gttcagtaac	taaagtgctt	agcaagaaga	14640
gagccgatta	aacctgtgct	ctacactgga	agaaagccca	attctttata	cttaacagct	14700
ttcatttgtt	aagtttccac	tgtgggacta	ctacaaaaac	attatgagtc	tttgatgtga	14760
tttgccacat	taaaaaaatg	gcacagacag	gggtgtggtg	gcacacaccc	tcaatcccag	14820
tgatcgagag	gcagacgctg	gtggatctct	ttattcttgg	ccagtccaat	ctatataaca	14880
agttccagac	ctactgagac	tgcacaataa	gtcttccccc	agaaccccca	tcaaaaaaag	14940
agcagagtta	ggaaggccgt	acacaagcag	gcttgcacac	tctcacgcgc	tcgctctcgc	15000
gcgcccacac	acacacatac	ataggcatac	gcacatgcgc	acacaacttc	ttttctctta	15060
acctgagggt	gcttctaaaa	tcattatctt	tttgtcttac	ctccagtaaa	tcccttcctg	15120
tgactgtggg	atgcctcgcc	tgtcagcctt	ccagcttaac	ctgtctctct	cttcctttac	15180
cattttagct	ttaaaaaaca	aaagtgacaa	tttgaacttc	ctgcctgctg	ggcctcaccc	15240
gaaggactga	tattgggctg	ataaggggat	atttattttg	gttgagaggc	ttgagaaatt	15300
gctctccccc	agaaagcttt	ctgtcactga	ccccatcaac	atctcccctg	atagtgttgt	15360
ccacggtgtt	tattctgggg	ctctggctta	cccaggagta	actgataaca	gccagcagga	15420
gataacgtcc	tgtaaagcgc	tttccgactg	gcatcaaatc	cctccagcct	gtcagcctgg	15480
agaatggatc	tgaaagcttt	agttctgggc	ttccacagag	ttcatcttca	gacctatcag	15540
gtagcaagct	tggagttcct	tctcagttaa	gcccaaaagg	gctgttttat	aagagcacaa	15600
aggatacttc	tttacattgt	cttaagtgtc	attccaaacc	tgccagatct	tggaggtcaa	15660
gaatcttgtt	tctactccga	gcatgtgcac	cccccaacta	atgatgctct	cagcatcctg	15720
gggagaagtg	cctgtttgaa	tgagcatccc	agaaacacaa	ctcagcctgt	gcatcggatg	15780
tgttttatct	ttggcccagg	aaagctgagc	tgaggctttt	cctgcgaaat	agggctacat	15840
aactatggac	agtttaggac	agtattctcc	ttgtctgagc	ttgaccaggg	catatatgct	15900
gtctctagga	gtaaatgttt	gtctcttagc	tgcctctgtc	ttctttggtg	ctgtaagtaa	15960
ttgaactagc	ttgggaagta	cctgtcgtgg	tttggcagag	gtgactgtca	cacctcacga	16020
ttccaggaga	cagcccagat	ggtagtctgg	ttagaccaga	accttggtga	aatgctcgca	16080

ctgccgagca	atggctagaa	ggggcagccg	ccatgccctt	ctagttgata	caggcaattc	16140
gaacagggct	catgaagttc	ctatgtaaag	agaatcgagt	tggaaattga	tgacagttca	16200
ttacttaaaa	ctagtcttaa	tctttcatct	aagtttgcac	agcactctga	tttcctctag	16260
gtaaactgcg	aatgacttat	taacccgtga	caacccccca	ccctgtattt	tttccacccc	16320
atcttagtga	acgctctgcc	cgttccagtt	tgaacagcac	ttttctatcc	tagttctcac	16380
taatggaaag	gagatcatcc	aaggggcact	gggctctatg	gaggctggca	ttgtcccagg	16440
gtttgatgtt	attcccgatc	cccccccc	gcccccgga	ggaagtggag	cagtgtttct	16500
gagtgggtgg	cccagagccc	tccctccgga	gtgagaggcg	ttaggggcca	ggtgtctagc	16560
ctttgtattt	gctgctgctc	agggtttctc	aagaagagag	aatggctttc	tgatttcact	16620
tcagttctcc	acagccctgt	gagtaaccgc	cctttcttct	tcattttagc	acaaacggaa	16680
agcaacccaa	agcaatacag	tagtgagaaa	aatgaactct	acccaaagag	tgtccccaag	16740
agagagtaca	gcgtgaaaga	aattctaaaa	ctggactcca	atccctccaa	aaggaaggac	16800
atctaccgtt	ccaacatttc	acccttcact	ttagaaaagg	acatggatgg	ctttcggaaa	16860
aatgggagcc	ccgacatgcc	cttctaccct	cgggtggttt	atcctatccg	ggcacctctg	16920
ccagaagact	ttttgaaagc	gtccctggcc	tatgggatgg	agagacccac	ctacataact	16980
cacagtcccc	ttccgtcttc	cacaactcca	agtccccctg	cgagcagcag	cccggagcag	17040
agccttaaga	gctccagccc	ccacagcagc	ccgggaaaca	cggtgtcacc	cctggcgcca	17100
ggcctcccag	aacaccggga	ctcctactcc	tacttgaatg	tttcctatgg	ttccgagggc	17160
ctgggctcct	accctggcta	tgcacctgcc	ccccacctcc	caccagcttt	cattccttct	17220
tacaatgctc	actaccccaa	gttcctgttg	ccaccgtacg	gcattagttc	caatggcttg	17280
agcaccatga	acaacatcaa	tggtatcaac	aacttcagcc	tcttccctag	gttgtatccc	17340
gtctacagta	acctccttag	tggcagcagc	ctgcctcatc	ccatgctcaa	tccagcttcc	17400
ctaccgagtt	ccctgcctac	cgatggagcc	cggaggctgc	ttccaccgga	gcaccccaaa	17460
gaggtgctta	tcccagcacc	ccacagtgcc	ttctccctta	ccggggctgc	agccagcatg	17520
aaggacgaga	gtagtccccc	cagcggatct	ccaacggcgg	gaactgcagc	cacgtcagaa	17580
cacgtggtac	aacccaaagc	tacctcatca	gtgatggcgg	ccccagcac	tgacggagcc	17640
atgaatctca	ttaaaaacaa	acgaaacatg	actggttaca	agactcttcc	ttaccctctg	17700
aagaaacaga	atggcaagat	caagtatgag	tgcaatgtct	gtgccaagac	gttcggtcag	17760
ctctccaacc	tgaaggtagg	tctccagacc	cccgcgggtt	tctgcccaca	gacccgtgct	17820
ggtttgccct	tggctgccag	gcagtgcatt	gttgagtgca	cttgagccat	aggagaccca	17880
gcttgagcct	gaactggggt	ctgctgaata	ctgaaaatac	agggtttatc	tcagtgtctt	17940
tcctaagagg	cttgcatctg	cattgtacat	acctggctct	gggaaaccta	gcaggcaggc	18000
aggcctcatt	gcaaccccag	agttcacccc	tgtggtttct	tcccaggtcc	acctgagagt	18060
gcacagtgga	gaacgacctt	tcaagtgcca	gacctgcaac	aagggtttta	ctcagctcgc	18120

ccacctgcag	aaacactact	tggtacacac	aggagagaag	ccacatgagt	gccaggtggg	18180
cagtattctc	tgggtagaac	tcttgacctc	tgtggaaaag	tagctgtaga	attgtcttcc	18240
tgtgttgttt	caacaataca	aaaaatatgg	tcttgtacta	ggctgctggc	cctgcacagc	18300
tcctgggtac	tctgtgacta	ctcacaggct	atactgagga	tggctgggtg	gatgtcagtc	18360
aagtttcagt	gggtggggac	atgtcctcan	ataaacagta	cctcagagta	ctgtgtgccc	18420
agcttctccc	cccccccc	ccccccca	ccgcgcatga	gcattgttaa	gaggcttctg	18480
gtctcccgag	gtttctggct	attggcctgc	ctttccccnt	ccagctgcaa	acaattaatc	18540
ttggtcttcc	cntgtgccct	ttctctgtct	tcccttgccc	tcacacttta	ggtctgccac	18600
aagagattta	gcagcacaag	caatctcaag	acccaccttc	gattgcattc	tggagaaaaa	18660
ccttaccaat	gtaaggtgtg	ccctgccaag	tttacgcaat	ttgtgcacct	gaagctgcac	18720
aagcgactgc	atacccggga	gcggcctcac	aagtgtgccc	agtgtcacaa	gagctacatc	18780
catctctgca	gcctcaaggt	ccacctgaag	ggcaactgcc	ctgcgggccc	agctgctggg	18840
ctgcctttgg	aggatctgac	ccgaatcaat	gaagaaattg	agaggttcga	catcagcgac	18900
aatgcagacc	gtcttgagga	catggaggac	agtgtcgatg	tgacctccat	ggtggagaag	18960
gagattctag	ctgtggtcag	aaaagagaaa	gaagaaacca	gtctgaaagt	gtctttgcaa	19020
agaaacatgg	ggaacggcct	cctctcctca	gggtgcagcc	tctatgagtc	atcggacctg	19080
tccctcatga	agttgcctca	cagcaaccca	ctacctctgg	tgcctgtaaa	ggtcaaacaa	19140
gaaacagttg	aaccgatgga	tccttaagat	tttcagaaaa	taagtgtttc	gtgttgcttc	19200
ttagggtatg	gcttggtgaa	tcagggtgcc	tttagcaaat	tgcttgtaca	tgactccaga	19260
tctgcaaagc	tccgctggca	ccgggtgctt	ccctgcacct	ctctggaatt	aaagaaggac	19320
tccaatgtta	ccaaaatctc	agggcataaa	tgaggcaaag	actcactata	tatacatata	19380
tacatatata	catattataa	atatatat	acttatttac	agccatgtct	atatatttga	19440
acctgtgtat	tttgaatatt	tgtgtggata	tgtttgcata	gcgccttcct	attactaaaa	19500
ctattgccta	gccataatta	ttttttcaat	gataattctt	cataatttat	tatacagttt	19560
atctttcaaa	aagcaataat	taaagaagtt	tacaatgact	ggaaagattc	tttgtaattt	19620
gagtataaat	gttgtatctt	tgtcctgtgg	ccattctttg	tagataattt	ctgcacatct	19680
gtttaaatgc	ctgagactta	gaagatagct	ctgtgatttc	aggcaacctt	tctctatgat	19740
aatgctttaa	aatgaggttt	tgatattgcc	aaagtcatgt	ggttggtgtg	ttaactcaga	19800
agatcacaca	atctgagtga	cattctctaa	gttggggata	catgtgcaga	attgctcagc	19860
aataatttga	ggggaaggaa	gaagaaaaat	attttatgtt	tcagaatgat	ggtttggttt	19920
tcctcctcct	agtcacaatt	ttaccaaaca	gtgacaggaa	ggctttgcca	acctgtctcc	19980
caatgtcaca	tgaccattct	gagtggccat	atgactttgg	catccctggg	tgttatctga	20040
aaatgtgaag	aagataaaaa	agccgtgttc	agaagatctg	tcgtaaagca	cagatgttgt	20100

gtgtgtgtgt	gtgtgggttg	gggggtttga	gtctggctgt	cattttgctg	ttggcttgtt	20160
tttgttttt	taatatcaaa	attgcacaaa	gctggtgccc	taccaagaag	gatttgatat	20220
agaaaggctc	aggccacact	taaaatacaa	gcaagcaaag	agaacagaaa	aaaataaaag	20280
taaaaacggg	tattcttatc	atcttaggtt	aagcgggtaa	tgaacactcc	tgtccccaac	20340
gcatcaactg	tattgtatct	gtaaaactca	gcttttctca	gtattttgtt	tttgcattgt	20400
ataattaact	taattaaaga	tgaaagggca	ttgcaaaagt	gttcaacaat	tacctcattg	20460
agtgtatcca	gtaggagtgc	aggaattaat	gtcgtatctc	atgagttgct	acccagctga	20520
gcgtgtgtgc	ttccaaatgg	taggctgggt	ggttcggtcc	tgtattctcc	taagcccaaa	20580
ggttacctgt	tggtgttcaa	ggtgtaataa	agaatgctgt	atatttatga	acctatttat	20640
accagtatac	catgtgtata	tatgatatat	ttataaccac	ttaaattgtg	agccaagcca	20700
tgtaaaagaa	cctatttttc	ctaagagcaa	aaagaatctc	tctgaagttt	tgcttaaaac	20760
tccatgacct	cgctatgact	ttggtgcttg	ggcaccaccc	tgcctactac	cagagagcag	20820
agcacctcag	tgcagaggtg	agggtgtgta	gcatcttggg	atggatagaa	acaccacacc	20880
atccagtcgc	attt					20894

<210> 6 <211> 23615 <212> DNA <213> human

<400> 6 gggaagccag acggttaaca cagacaaagt gctgccgtga cactcggccc tccagtgttg 60 cggagaggca agagcagcga ccgcggcacc tgtccgcccg gagctgggac gcgggcgccc 120 gggcggccgg acgaagcgag gagggaccgc cgaggtgcgc gtctgtgcgg ctcagcctgg 180 cgggggacgc ggggagaatg tggactgggt agagatgaac gagacttttc tcagatgttg 240 gatatttgct tggaaaaacg tgtgggtacg accttggtaa ggaacttgaa ttttttttt 300 ttaattctga aattgatctg aaaactttat tttcttttcc tttattgtta ttattattaa 360 ttttttttgg ctaatgtcgc agtagaaaca tgcttctgct ttagtgcact tagtgctgtc 420 aaacatttgt gagactttcc ttatgaatca ttaacccttt cagttctaga cataattgcc 480 aattcattga aatttcagta gtggttccag ctcacactcg tcaaactatt ccgggttggc 540 600 tgaagttttc tattttattt tatttttaac atgtgtttgg cgtcatgact ctacatgttg gaactaaata aaaataagca ggtttgctta aatcataact gagggaaaaa caactttgca 660 tccaactttt tttttttaa gagcatccta tttagagaag tggaagaatg taaaaacctc 720 780 cttgaaggac ttccacagaa tgttatgttt acatttgaac aaacacacat tcttacatgg aaatgatacc catattcctc atttttatca aacatgtcta tatgagaaaa cccttacaga 840 agttgtttac cttttttgc ctttggaaaa cagtttttt ctgagtgtga gggaggattt 900 tgggggaata tcctcatcaa tgtacaagtg gaagcagagc ttgtcctcca agtcttctaa 960

21

atttgttata actttagtta cagtaaactg tagtacatca gtgacttctg ggaattcata 1020 cactttcaga tttaaatgga aagtgctatt tgtagctgag gactcctaaa ggaattctct 1080 ccagggaatt ttattaaacg gttttatgtt ttgtttttgc cttttcaatt tggtatgaga 1140 tgcttgcaag tcagaagaca ctgcaggctg ttttcccctt cacccatttt tcctcctctt 1200 ttcctgtggt ccaagtgatt tctaagaggc cgtagctcag tgatgctggc aggatgcaac 1260 1320 ccttttcagt cttccatgtg agaggatgaa agagggctcg cagcagaggg aggaggcagt tgttttgaaa gttgttttgc gttgggagct ggtgggaaag ttcggtcttc cccatttgga 1380 aaaggcaggc tgggttccgc tcctgcacca cacgcgcttt ccatttttag cttcattcag 1440 aggcagacag agctccttcc tcttcctctc cttgtttgtg acacttttct gaggcagctt 1500 ttccacagtg ccgagggtct ggcggccatg accccaggca ttctgggaca ctggactgtg 1560 tgcccagaac attttctgc catgagaggt aaagccaggg attgttcaga ggtgattctt 1620 ttttttttt tccttttccc cacagtgagg ttgccacatt ctttttttt tttttttt 1680 taactaagag tagcatttaa aaaccttgct tcttttcaag gcagtttact ttatacggct 1740 tcttggctct ttctcaactg taccaagcac tctgcatctg cttttaaagt cttcagacta 1800 ctgtattagt catagcctct cagaaggagc cacaggaacg gcgggacaat ggggattaaa 1860 ggcctttcct ttctctcca ggctgccccc aagtgtaact ccagcactgt gaggtttcag 1920 ggattggcag aggggaccaa ggggaccatg aaaatggaca tggaggatgc ggatatgact 1980 ctgtggacag aggctgagtt tgaagagaag tgtacataca ttgtgaacga ccaccctgg 2040 gattctggtg ctgatggcgg tacttcggtt caggcggagg catccttacc aaggaatctg 2100 cttttcaagt atgccaccaa cagtgaagag gtaagcctct ggtttattga caagaagatt 2160 ggggacctgg tgccaaatct ccctacttgc ccttgaggcc ttgtatatct ctgaaaacct 2220 ctgagaatct gtaagtatca gtaaataatt gattgctcta ttcaattctt gcattgcttt 2280 ctctttccct aaaccatttc cttctcattt cttccagcct tcaactgttc ctcactaatt 2340 agtaaacagt taaatatttt ggcaaattgg catgtcttag aaaagcaact tgcagcatag 2400 ggtgggtgaa attgtcagtg aacttcaaga aagctctggg cccactggcc ctagtgtccc 2460 tgttgtacaa tatctcttaa gggagaaaac tttttcttgg aaaaaaaagt tttaatattt 2520 cttttgtctg tctttggtaa ttagttggct ttactctttt taacaagcca gctttattag 2580 2640 agccgagaaa gggggtcatg taaaagtgtc ctctgtctgg atgacttcag agctaaccac 2700 tgtttatctg cagcagctcc tttgctgggg ctgggctggc aggccaattc cttactggcc 2760 tctgaagtgg gtacactctt tgttgtttca aaggggatga aaacccaaac ttggaatgag 2820 caactgattt gtgtttacct ttaatataaa gattatagct aggcgtgatg tttagctgtg 2880 aaataacttg cagaaccacc tcttgttttc agaatttggc ttactgtagt tgcacttact 2940

agtctactac	tgggttgagt	tgaatgaaag	gacccctcag	cagacttccc	ataccaccat	3000
tagcacagag	cactgtcaat	tctattactt	ccttcagaaa	gtagggaaag	gggatggttg	3060
gccgtagaaa	tccagaattt	gctactggga	ctattcctta	cagccgtgtc	aaatcacttt	3120
ccccttccc	taaggaacag	tatttgaagg	aatccgggag	actaggaaat	gctttgtctc	3180
tttcctgttt	gtgtgtctga	gtccagtgtt	tttggtgagg	gggagacaca	gctgtctaaa	3240
attaaataga	acaacgatgc	tcagtctttc	ttttttcccc	cactgctgcg	tgaatggagg	3300
cagattttat	aaaaaataaa	atttaaattc	tagttgtagt	tgaatgttac	caaaaaattt	3360
aaccccagag	gtcagcctta	attatacctc	ttcctgaaag	taatgctctt	cttatagaaa	3420
gtctctcaat	atgtggccct	tggaatgaat	gtaggatttg	tttgggtata	tgaggtttga	3480
ctatggcttt	aaaaagtgta	gtgtgttttt	tccccatatc	aagtttgacc	aaatattcgt	3540
ctgttcccaa	gcttcgtttg	tgctgtgttg	ccctgtccag	tcctttggga	ctgaagtaaa	3600
aatctccatt	ctgtgggtca	tctttgcctt	ttaattctat	aatgttctta	tcgtcagttc	3660
agctcttagc	ttaagttttt	caatttccgt	cattctcctt	taaaatcata	gctaagtcaa	3720
gtaatgctct	tagatcattt	agttcaaggt	tcagaaagac	agtcacttac	ccaaaggcat	3780
ataggtaaag	ccagaccggg	gacttgaagc	aaagcttttc	tgacttctcc	aatgagtgct	3840
tctcgattat	gctacactgg	ccctcttgg	tgtcactgtg	gttttagtta	tcatcttaat	3900
atatttcaga	ccaatcctta	agctattttg	tgttttttc	cctctgaatg	tataacttcc	3960
tatttcaata	tattaagcaa	ccaaaaaaca	gacaatgcct	gtgttcctga	agaaggtcct	4020
tcgaaactaa	cctaagaggt	gagggttctc	ttatcctatt	tccctatctt	gcatttaact	4080
gaagcgcttg	aatagaggat	agtatgtctt	taaaccctaa	tcataaagtc	aagcaaggag	4140
taaacttgaa	tgtaatactg	tcttaagctt	actctggaat	ttgtacctgt	ttttctgttt	4200
ctctcctttg	tttttgaact	ttgggaaagg	acagcttcct	ttagaaggtg	aaagaggatg	4260
gtggagttga	gccattaagg	gtaggatagc	tgcaaactag	ttccgggaca	gcaacattaa	4320
ggattgatga	aatgtttaca	ttatctttat	tcagttagtt	ctttaagttc	catgagccat	4380
tgaaatagga	agagtctttc	tacatgtact	ttttatctga	cttattaatc	ttgcccttct	4440
ttaaatgttt	tcgtttaaat	agcaaaagat	gttacaatat	gtactattgt	gctgacatac	4500
cggggaattt	ttttttaca	agaccatttt	tcattatgaa	tttgtaccat	gtgtcagcac	4560
ctttttttt	tttttggtta	aaacaaaaca	tacaaatcat	atttctgatc	ttgaccctca	4620
tttttagatt	gggtttagaa	tcattctgca	cctttaatga	aaaactgttc	ttacttccta	4680
tttccagaac	tgaaatcaaa	tatagaccta	ctattcaaaa	ctttgaaaat	gttttaaact	4740
gatgggttat	tcttttatgg	gggttttccc	cttgtcctcc	tgaaataatc	tcttatgact	4800
acttgactac	agaaaaatca	gttcaagcat	ttatatttta	gaagcgttac	cctgtagagt	4860
ttctgccgtc	ggttgagact	gcttgcactc	aagaggcact	gtggctctgt	gagtctcacc	4920
tccctgtatc	gtggctgata	aacatcagac	agattgtgag	gactcctttg	gtgtccattc	4980

tgatcgaaat ccattattaa ctcaagccat ctgtaaaaag tatctcacca taacatgcaa 5040 ttctctcttc atgttgcctt ttatttgaga aatgatgtac caaggcatca ccatgtctcc 5100 tttaatagaa agataatgaa gaaggaaacc ttctccaaac aactttgttc acttcactcc 5160 ttttaaaaat ggggtgattg ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg 5220 5280 gaggctgagg acagcagatc acctgaggtc aggagttcaa gaccagccta gccaacatgg 5340 tgaaacccca tctctactaa aaatacaaaa attagccggg cgtggtggtg ggcgcctgta 5400 atcccagcta cctgagaggc tgaggtagga gaatcgcttg aacctgggag gtggagtgag ccgagatcgt gccattgcac tccagcccag gcaacgagag tgaaactctg tttcaaaata 5460 5520 aataagtaaa taaatgccat tgcactccag cccaggcaac aagagcaaaa ccctgtttct 5580 aaataaataa aataaaataa aaatgaggtg attgcaggct gaaggtcttg gtcactactg agttctagtt ctctcaagac aaatattcat atggtcaaaa cagaattata atctaacgag 5640 tcattcttat agagtgggat tcggggaggg aaaacagata gctagtaatt taaatgatct 5700 taatgtaatt tggggagagg atgatcagat gacatttaga cttggatata gtttctgctt 5760 5820 caaacccacg ctgtgtgtgt ctgtttgcat actctctaaa gaaggaattt gaaaaaaaaa aaaaaaaaca aacctatatt gtccttgtta tcagccttcc attaagcgct ccaactcaac 5880 5940 ccatcctaag ctgtcaaatc tccttcattg tgtaaaattg aaaagaagcc ctgtgttttg tccggaagct gtggaaactg tggacggcgg ggtgtgttct gtaactgagg ccacagacag 6000 aaacaaatct gctcaagtgg tggaggggtc tgcaccgcac ataaagagct tctgtgggag 6060 6120 caggtgaagc aaggaggtat tgaagccggg tgtcctcttg ctgttgagtt tatagaaggc acagagcggc ctgtccccag cagtaattct ttaggaccct ggtcagttcc agtgaagttt 6180 ccttcttgag ttaggtgaac acattctttg tctttttagc actgtgaagt ttaagctaca 6240 caccaagttc ctccttagta tttgcttggt tcaaagataa actgttacaa actatgggtc 6300 agggagatgg gtagtctaag atgcacattc tggatctttc taggaccaga gggagactta 6360 gtacttggtt ttttcacttc cctttaaaaa caatcctggt tcctgttccc cctccaaagt 6420 tacctggaca agcaccatag tcttagagtt tcagctttta tggcgtctgt gtctcagacg 6480 6540 tgcatttgag atgaagatgt ttactgtata ttagaacgct agacttagaa tggatatagg tggtttgtaa gtgccttcca gttttgaaat tttatgattt tgtatcttta tctataggtg 6600 tgagtttata tgtgccctat agcactgtat gtaattgaaa tttaaaatat tagggcgctc 6660 6720 tgtccctttc ctaatgataa gctaatattg aagctcttta atttgtctgg ggtttgagga ttatcataga cctctcttct accacagagc cttctctttt taattgttct cctgtcttgc 6780 ctgttgaatt gaatttgtaa ggttagagat ggcaagagct acttccggtg ctgctttata 6840 6900 gcttactagt gatgagtcta tagttgtgct caaataggta ttgggtagct tatgctttct agttgacttc tttttgggca caagaaaatg tgtgtaagat ggataactga aaacctagag 6960

gcccattctg	taaaagaatg	gcaatttgga	agaagaacca	cgacctcagt	gcagtgctcc	7020
gttttggtaa	tcaagctctg	actcccaaga	caccatctgt	aagagactat	aatttaaaac	7080
aaagttgatg	aaccagttga	gtgcctttct	taaaattact	gttgtaaagt	agatatgttg	7140
aaaatatcaa	ctgctaatta	ttggctcacc	aacaaatggc	atgatttgtt	tttcctgttt	7200
gtcattctaa	tattatggaa	taatcactga	aatatgaatg	ttaaatgatt	tgcatgtcat	7260
agaattcaat	tccattaatt	ttccaaatta	attagattca	ataataatat	gtccaaaaca	7320
atgagcctct	gaataagtct	actaaagctt	taaatatata	tatttatatc	tcaagactgc	7380
tctgagatac	tcttgtcccc	agtagtttta	ctgccaacaa	ataccaataa	tgacaaacgg	7440
tgattaaaag	ggcagataga	tgtaaatgaa	ggcagaggag	gaggatgaaa	tgaacatctg	7500
cttttttcag	ctctctgaca	gaaattctta	aaggaccaaa	aataacactc	ttgtttcaac	7560
ttatgttagg	tgtaggaaaa	ttttcttttt	ttctctttcc	agtctgagta	tgcttcattg	7620
atttgtatat	tgaatactaa	attgttttag	aaaaaaaaat	cattggctga	taagacactt	7680
aaatgagaaa	agctagtctg	tcacaggcat	gtaggtgtgc	catatctatt	taaatagagg	7740
tttaaattat	tgatgagact	taatgaggaa	ctggtgtata	ttgtaaccaa	aattgtagat	7800
tccactgtga	acaatctgtg	catggatcga	ttcacatatt	tgagtctacc	atttcaggta	7860
catgaatgta	caggagctac	tgggaatata	aaaactggaa	aataaacatt	atcatctatt	7920
accactccct	cctccttggt	ccattttagt	aaagaattca	gtaaagtgat	aggtaggcta	7980
tcttgaatga	gaagaaaata	aaactaggaa	agtgagagaa	taaaaaccaa	aacaaaactg	8040
taactgcaaa	ctgttgtaaa	ggactactca	cagaggagtt	ctattgaata	gtgacgaatt	8100
gcttcctgat	tcacggttgg	tgatttttt	accccttcaa	agagaaattt	attattaagg	8160
aggaactggt	atagttaaca	tgtttcttta	gcaaggcccc	acaaagttaa	aatgtgtgat	8220
gcatccagtc	tgaggtcatt	tcctcagatc	ttagaaccta	cagctttcct	ccgtataaac	8280
ttaatttcaa	aggagggctt	ttggccaggc	atggtggctc	agcctgtaat	ctcagcactt	8340
tgggaggccg	aggtgggagg	atcgcttgag	tccaggagtt	tgagacaagg	ctgggcaaca	8400
tggtgagacc	ccttctcaac	aataacaaca	aaaattagct	gggcgtgatg	gtgcatgcct	8460
gtagtcccag	ctactcagga	ggctgaggtg	ggaggatctc	ttgatcccag	gaggtcaagg	8520
ctgcaatgag	ctaagatcaa	gccactgcat	tccagcctga	gtgatagtgg	gagaccttgt	8580
ctttaaaaca	cacacacaca	cacacacaca	cacgagggcc	tttgaccact	cttgagtaga	8640
agactcgaga	agaacaaagt	agaaggccag	agaagaacaa	agttacttga	aagatctctt	8700
attaaagaga	atgtacaagc	tatgaaaaaa	aaaaaacaca	cacacacaca	caaacctcat	8760
ctggaatgaa	aaaaacataa	tgcatttggt	ttctggttcc	ttaggctgtt	atggaacaac	8820
caaagaacat	tattttggtt	tctgaggtca	gaactatttt	attcccctca	agcacactat	8880
gcttatggtt	tgagggagaa	tgagaaatag	gaaactagga	acaggctgaa	atggtctaat	8940
cttgaccatc	taattctgca	gtgtcttatt	ctcattctaa 25	aagagaatgg	ttatattcgc	9000
			23			

tgttctagca taaaaagtaa tgataaaaat aaaagatccc gtattaccag acaataatcc 9060 cctagactgt tttaatgctt ggttgagtat ttgcttatga tctcagactt taaaagatgg 9120 tctccccta tggtgaagct tgttaattat gtaggcatca ttaatgtctg tttacttatc 9180 aaaattttat cattgttagt tgtattacta cttgacagtc caatttattt aattgaaaag 9240 attggttaac attttatagt caaagtaatt gtttcctgtg tttttcctg tttaggttat 9300 tggagtgatg agtaaagaat acataccaaa gggcacacgt tttggacccc taataggtga 9360 9420 aatctacacc aatgacacag ttcctaagaa cgccaacagg aaatattttt ggagggtaag taagggaaat ttcttcagac ccattaaatg ttaggaaaaa atggagctaa aagagctggg 9480 tggctcacct ttctcatcct gtgctgagaa atgctggggc tcacccataa gtatccagca 9540 tccccatgga cacagggaat tctgaacaaa tgtgatgaaa ccgatgaaat gtctggcctg 9600 taggtggtta gtgatggaga tacgggctat atgtgaatct tgatttttgc aattcattag 9660 agctttgtaa tgaaaggaaa cagtttgttg cttgctttaa ggataggttc atttgcattt 9720 ctccgcaagg aagtagtaat gagttaccaa gccttagatt tcaccccttt ttgatttctt 9780 gctgacttaa ctttaattga atggaagagt tatcacaaat gaattatctt tttggtttt 9840 ttttttttga gatggagtct cactctgtca ccaggctgga gtgcaatggc atgatctcgg 9900 ctcactgcaa cctccgcctc ccaggttcaa gcaattgtcc tgcctcagcc tcccgagtag 9960 ctgggactaa ggtgcgcgcc accatgccca gttaattttt gtatttttag tagagacggg 10020 gttccactat gttggccatg atggtctcga tctctggacc tcgtgatccg cccaccttgg 10080 CCtcccaaag tgctggaatt acaggcaaga gccaccgcgc ccagccagga atgacaaatg 10140 aattacctta taagtaaatg ccattaagga aggatagctg gaagatgggt tgaggggaat 10200 ggaggaccac agaactagtc ctatttaaat acatgtgcat ggtaaaatga ttccatttga 10260 caataggtta attatctcat agcataagga aaatgcttaa cagtcatatg caagatgata 10320 agctttccta tagcatccaa ccaaaagatc tagccagtac aatttccttt gctatattag 10380 ggttagaaag gcccccagag gtgaaccaat tagatggaat ccttgaataa aacactggat 10440 tagcagtgaa cagaaaaaag tcagattgct ttccttcttc ccatagatgt ctcagggata 10500 tttagtttcc tcagaagata aagaatttag taagcgtttt tttgtgcata cttacatgaa 10560 atgtacatta tttgaattct ttaaaaagaa acagctgcat gataacaaaa attgtgttat 10620 gcttgcttta gctggtattt ttgcctagaa cgattatatc gttcggacaa gaagctattc 10680 10740 ctaagaaaca atattttaa tccaggaagt ttttcatttt tagaaattta tcttactatt tcccaagcaa aagagggtag ttacagattc actaagaatc atgtgctcac aatttttatt 10800 taataattat tcctccttaa aatatattaa tcacctgact tacaatggtg gaaccatgag 10860 tgcatttttg cctttattgt caataacgtc ttctcagaag tgagccacaa aggtgcatag 10920 ttcttggagt taaaggtctg aattaagaca atccagcata agtctcatta atgtgtgatt 10980

attttgagaa	aaggcaagaa	gtacctaaga	atctcccct	cactgtccag	ttccctgttt	11040
catttaaaga	ttcactgtaa	gtaactgaaa	ggctttcctt	gggaggattt	atttgaatca	11100
gtctttcaca	tgcaaaggat	attgtagaac	atctcgtttt	tgctggcagg	aatatgaaca	11160
tctgttgtga	ggaaagaaaa	agtttcatgc	aaattacact	gccaaagaag	ggatgttcaa	11220
gttgagaaac	cagtgacatt	tcttgtaact	gtactatgaa	tcagcgcatt	ttaatcttct	11280
agataatata	tggaagtgca	ggaaggtggt	aggaaacggt	gttcatttta	catatgcgtt	11340
attttattct	gtgtgagtga	cttcatggca	ccgacattgc	tgtttttaaa	tgaggataca	11400
gtaaattgca	gtccgaggaa	ggctaactgg	aatcaacata	cccgtagctt	tagaaagcag	11460
tttccgcacc	agcgaagagt	acaagagcga	tggaacccca	tgttcctgga	agtttgcaca	11520
tcagagtaaa	caaacttgaa	aacccctctt	gatagcagaa	ttcacccagc	cttgttccat	11580
tttctcttaa	caaaacacac	cgcaaaagct	ctcacaagct	gctttgatga	agccacatgt	11640
atttcccct	tcacaattta	caggaagtta	ctcttaaaag	aaagtgattc	tggtgtttac	11700
cgcctgtgtt	aaagggacag	agttcctttt	tatttctgat	aacgtttgag	cgaaatacag	11760
aaactatctg	tagactagca	tagtcggtac	gtgagtaagg	aaaagcaata	acctgctgtc	11820
cggtgagcac	aaaattcctg	ctacgaacag	tgccttactg	ctgcttggag	actgcaagtc	11880
gcagatcaca	ctaggtattg	actgattgta	taaggaaatt	tcttaaagtc	taaagtaaag	11940
gtggtacctc	ctaaaaagag	gggaagagag	aaaactttgt	gtggaaggat	aaggagtgtg	12000
tttatagttt	cagtaagagt	gtacgtttta	atttttcttc	ttcctctgcc	tctttgccaa	12060
gtagcctgag	tgcatctgtt	atccagaagt	agtattactc	taggacaaac	ttcaaattct	12120
tcattctgcg	ttgcctttaa	ggaacaacat	actttcttcc	tgttcttttt	ccaaaaacac	12180
acgcctatgg	ctctgtgtgt	ggtgttttag	ccagcctcct	cccagataag	gggttccctt	12240
ccctcctttg	cattgaaagg	aaagtgcaag	tctggacatg	tttatcaaga	ggaaaagtga	12300
cttctcagta	atagactgtc	aaattcgggc	tgctgcccga	gtgttcgctt	tgttatggca	12360
ggtgaagttc	acctttgccc	cacccagtgt	ttccacaaaa	aggcaaggtt	ccaagtattc	12420
atatgaacaa	gtgttacttt	aggacttgga	gggttggggg	tggaggatgt	ttgcatagtt	12480
gaagccttgg	gcgggggtgt	aggaaacggc	gagtacagag	gccatagaaa	aagctaagac	12540
tcagtttgac	gtcgtcagcc	ggcttggtct	tctacccagt	gactcaaagc	actaaaagtc	12600
agcataatcg	gaactgaagt	cagtagcatc	gcccatttgc	cattcactgc	agtagcaaaa	12660
gtagtactct	gtggtgggtt	aatcggtttg	aggcagctcc	ttaaatgaac	atttgtgttt	12720
catttttctg	ttattttccc	gaacatgaaa	agacgataaa	actgaaatgg	aaaaggtaac	12780
tgacaaaagt	gtgccttacc	tgtttccgcc	ctgatttctg	ctgattcaag	actattctgg	12840
ctaaactgat	tggattcttt	ttctaactag	gcagtagggg	atcagaaatc	acacacggta	12900
ccggctgtgt	ttattctgag	aggtgctggg	gagctttggg	tctgacttcc	ttttacatgc	12960
ctgtcttctc	ttttggacag	atctattcca	gaggggagct 27	tcaccacttc	attgacggct	13020
			21			

13080 ttaatgaaga gaaaagcaac tggatgcgct atgtgaatcc agcacactct ccccgggagc aaaacctggc tgcgtgtcag aacgggatga acatctactt ctacaccatt aagcccatcc 13140 13200 Ctgccaacca ggaacttctt gtgtggtatt gtcgggactt tgcagaaagg cttcactacc Cttatcccgg agagctgaca atgatgaatc tcagtaagtg gattacagaa caaaaaaata 13260 13320 aaaaatgcca gtaatgtcgg ttctgcccct ttgaactaat aacatgttgt ttaattatac ggctttgtca tgtgttggat gaagtaggtg gcttaagcta gggactagga agaggaaaaa 13380 cattittiga giccctatta actattagga aactigatca titaaaagta tatatatata 13440 tgaggagcta ccttgagttt tgaattcagg atgttacagg aagaaatata tgtccaattc 13500 taatttatcc aaaagcagtt gggagaatta cagggattgg tccagacatg ctgcgtatgc 13560 13620 aaggtatagc cctcatctgt ggtactttgg cagggcttag actgcatcaa aatatttata gatgtacatt tgagtgtaca gttaggatct gatgtggaac attgtaagat cattgctaga 13680 aaaactttgt cataattttt caatattatt ctaagtgaat aaccgtaaag attttacatc 13740 ttagcttcct tccttacagt aaaaaaacta tctgatctct tgatcagtat tatagtagcc 13800 acctatcact ttatcttaac aaattctcaa ttccttaggt ttatgtgctt ttacttcttt 13860 tatttgatta aaattgctgt catgacctct ctctgcagag ggctgcatca ttttggtcat 13920 tctcaagtga tctctttgag caatttaaga attgccataa gattctaacc tctgctgtaa 13980 ctatggttgt gtgttcttgg ttagaccact aaatcttatt agcagtttta aaaattattc 14040 cttttggttt agaagttaag actaaatgct gaagtttttg taacttttgg ttttgatatc 14100 atttcaaact taagaaaaca tttgaagaaa aggacaaaga atttccactt accctttacc 14160 caggtttacc agttattgat aagtatatcc atttgcttta ccagaaggct aacttgtttt 14220 agttctcatt ttcacctttg agacatttgg aataaatatc aatgttaaca taaattggaa 14280 ttttgacttt gattttagga ccaatgaaca agccaagtac ttaccctagt catatataat 14340 ccaactgtat ggttatttgg tattcattcc acacttcatt ttacttgatc tcccttaaga 14400 ttgcaagatt gtgtttgcag tttttctgaa aatctggggc tataaaagca tcaggacctc 14460 14520 ccccgtaggg gaggtcgtgt gtttggggtc cttacacaac aggttaccct tgagcttcag gaaaagaact ggctctcagt tccccagttc cagcttaatg ggtctaatta ggtcctgacc 14580 aaaaaggtgg cagttctttt ccctcatgtc tcttcagcgc tccccgagac tctggagact 14640 ctgtcatatc cctagggctg agcctcccag gaaccattcg gctgttgtgg catctgtgta 14700 tgccatgccc agtgctgagg acctagtaac aaacgacaaa tgcacaggca cagtggcatt 14760 tttgtggaac tcgtattcca gctgtgcgtc tcagaagaag cgcacagctc cctcctggct 14820 14880 ttcttaacat agtgagccac ttccacttaa gggtctcctt acattccttg agtttaatca 14940 ttcatggatt cagaggaaag tcttttgatt tttgcttttc tttaaacagt tcatttgagg tgacctaccc cagtgacttt gcaccaacca ccaagaaact tttttgcatg cttcccgcac 15000

cctgtgccaa	tcaagggaag	ggtttaaagg	cctggcgttt	ttattcctca	aagaaaggtt	15060
ttgcacagta	ttttaaggtt	caagtgcttc	tactttgtgt	tcagaagcaa	ctgtcatata	15120
tactgtgaaa	tgacaccttt	tatttatccc	tttttattta	tgcagtatgt	ccccttttat	15180
tttggcagaa	ttttttctaa	atggtggttt	aacattttca	agcacatttc	attgtccaat	15240
attcatagta	aagaatgaga	gttaacaata	accagtcaca	ttaaaacaag	attcctgctg	15300
ccagttgtga	aaccggttgt	cttaggcgtg	gcagctgatg	attgagactg	tgatcaggaa	15360
aatttccact	atttcatcag	gcctaatagg	tagattgtgt	ctccaaatga	actgtgttgg	15420
gtttccatgc	ttaaagcaca	atagaggtgg	tgcaagaatc	tccatgaggg	cttaaatggc	15480
agtgatggtt	caggcggtag	agtttggaga	agaagggatt	tgaaacaaac	caaaggaaag	15540
aaaagtaagt	agccagaaat	cacaaaatgg	catttttcta	aaaacaaagg	aaaaggaata	15600
aaagaactaa	taagtttgaa	acccctaccc	ctcccaaatt	tggcaggggg	ggaggtattt	15660
tttttctatc	tatctaacta	acccatctag	aaaacagttg	accaaattat	agacttctaa	15720
atgttaatct	gctttctcag	tttcagttga	aaagagactt	tgttttgcct	actgcagaac	15780
ttctaggttc	tttcttatag	tcttggggtt	cttattatag	atcgaaaatg	tgagtcggca	15840
taattaagcc	attcggagtc	ttcagaagca	gttcactctt	gaaatgactc	cgtccgccta	15900
cagccattta	agatttcaga	acaaaaacag	atcttgattt	tctttttcat	gttaactcaa	15960
gctgttgctg	agtgggagag	tcagaaatga	caccagctcc	actgattact	cagctgctga	16020
aggatgattt	tttaaaatgc	acctttactg	tatatggact	tcctaatttc	cacctgtaga	16080
gcatcttagg	gaggctaaca	tgtcactctg	gatgttcttt	tagaataaga	tgcaaatcta	16140
tttttctgaa	ggcattagag	atagcaaaca	tttattgtga	gtttactata	tactaggcac	16200
tgtgctaagt	gttttgcata	gaaagtttaa	aattctggct	tttttgttgg	cccaatcata	16260
agtttcatat	cagttcaaca	ttcaaattat	attaaggtac	ttaagaagaa	tccctggcta	16320
aatgtgaggg	gcagtgccac	agatggactg	aaactttatg	cttattgcac	atttatgcta	16380
ttattatttg	ttgaattata	gaaccaaggg	agtgtggaag	ccactggaaa	aaatatgaga	16440
cttagataca	taatttgagt	aaaaatggct	caaagtcatg	agggtaaagt	tttttgtatt	16500
tccattttat	tcgagcggca	tcgtttttaa	aaatcattat	gaatttgacc	ctatatagat	16560
gtttccaaat	aattctttt	caccttcata	aaattccttc	ctgtggctgt	gagatgcctt	16620
gcctatcagt	tttcaagctt	agttgtcttt	ctcatccttt	accattttag	ctttaaaaaa	16680
caaaagtgac	aattagaact	tcctgcctgc	tgggcctcac	tgaaagaccg	atattggcct	16740
gataaggaga	tatttatttt	gttttagtgg	cttcagaaat	ccctctccct	cagcaagctt	16800
tccatcacgg	ccccccgtc	agcatcttcc	ctgatagcgt	tcttctctgt	gtttattctg	16860
gggcttcagg	ctcgcccagg	aggaactgat	aaccgctggc	aggagataac	attctctaag	16920
gggctctcaa	attggaatcg	aatccctcaa	gccagtcagc	ctagagaata	catttaaagg	16980
gttcagttct	ggagtttcac	agagttcatt	tctagaccta 29	tcagatagca	agtgtggagt	17040

tctttctcaa ctaaattcaa gcagagacat tttttagacg atgaaggata tttgcacaaa 17100 ggcttcagca tgatccccca aacctgctgc ctctgaaggc atctccacac attgacagcc 17160 aatgccttca gtgcgttcct agggcaggtg tcctggcttg agtgactgtc ctccaataat 17220 cagagctcaa actaaacatc gtatgtttta cttttggttt ccaggcaagg ctgagcaggg 17280 17340 aattttcagt tttccctgcc cagatgggtg ttttttcctg aaggcatcat ttattgtgta gcgaggagac agggctggct gtggcaggga tagtctagaa ctgtcctcat tgctgctgtt 17400 cctaaatagt atctttacca agtaataacg tgccgtcttt gggaataagt gctttcctct 17460 tagcctgttc tgttttcttg ggtgcgctaa gtaattgaac tggctcagga agtacctatt 17520 gtggtttggc agaggtgact gtcacgcctt gtgactccag gggccagcac tgctgggatc 17580 ctggctagac cagacagagc cttggtgaag tgcttaggct gtctgcacat cgcgaggaag 17640 17700 gtggtattca cttcgctaag ctccttggca taggcagttt gaacagggct ttatcaaatt cgtattcaac aagagtagaa gcgaaaattg atgactgtgt attacttgaa atgagtctta 17760 atctttcaca tttagttctc agggtatgct gatttccttt aggtaaacca tgaacatcag 17820 aaagactttt attaacctat gacagggtcc ccaccccagt atttttccac tccattaaaa 17880 tggaagtttt ttttttttt ttcttttttg agacagagtt ttgctcttgt tgcccagtct 17940 ggagtgcaat ggcacaatct cggctcacca caacctccac ctcccagatt caagcgattc 18000 ttctgcctca gcctcccaag tagctgggat tacaggtgtg cgccaccacg cccagctaat 18060 tttgtatttt tagtagagat ggggtttctc catgttggtc aggctggtct cgaacttccg 18120 acctcaggtg atccgcccac ctcggcctcc caaagtgctg ggattacagg caagagccac 18180 tgcatccagc ttaggctatc ttactccagc ctaaacagca attttctatc ataaggtctg 18240 tactaatgaa aacagaatca cccaaggctg ctgtttgttc tgtctgtgct gccattgtcc 18300 gcattttgct gaggaggaaa cggaactgca cttttgagtg agtggcccag agccttctag 18360 aatgagagtg cgttggaagc cagatatgtg gcgattgtgt cgccagctgt tactcaggtt 18420 ttctcaagaa ggaggagcaa ctttggcagt tttgcttcag ttctctctag ccctctgtgt 18480 aatcgcccct ttttctttat ttcagcacaa acacagagca gtctaaagca accgagcact 18540 gagaaaaatg aactctgccc aaagaatgtc ccaaagagag agtacagcgt gaaagaaatc 18600 ctaaaattgg actccaaccc ctccaaagga aaggacctct accgttctaa catttcaccc 18660 ctcacatcag aaaaggacct cgatgacttt agaagacgtg ggagccccga aatgcccttc 18720 taccctcggg tcgtttaccc catccgggcc cctctgccag aagacttttt gaaagcttcc 18780 18840 ctggcctacg ggatcgagag acccacgtac atcactcgct cccccattcc atcctccacc actccaagcc cctctgcaag aagcagcccc gaccaaagcc tcaagagctc cagccctcac 18900 agcagccctg ggaatacggt gtcccctgtg ggccccggct ctcaagagca ccgggactcc 18960 tacgcttact tgaacgcgtc ctacggcacg gaaggtttgg gctcctaccc tggctacgca 19020

cccctgcccc	acctcccgcc	agctttcatc	ccctcgtaca	acgctcacta	ccccaagttc	19080
ctcttgcccc	cctacggcat	gaattgtaat	ggcctgagcg	ctgtgagcag	catgaatggc	19140
atcaacaact	ttggcctctt	cccgaggctg	tgccctgtct	acagcaatct	cctcggtggg	19200
ggcagcctgc	cccaccccat	gctcaacccc	acttctctcc	cgagctcgct	gccctcagat	19260
ggagcccgga	ggttgctcca	gccggagcat	cccagggagg	tgcttgtccc	ggcgccccac	19320
agtgccttct	cctttaccgg	ggccgccgcc	agcatgaagg	acaaggcctg	tagccccaca	19380
agcgggtctc	ccacggcggg	aacagccgcc	acggcagaac	atgtggtgca	gcccaaagct	19440
acctcagcag	cgatggcagc	ccccagcagc	gacgaagcca	tgaatctcat	taaaaacaaa	19500
agaaacatga	ccggctacaa	gacccttccc	tacccgctga	agaagcagaa	cggcaagatc	19560
aagtacgaat	gcaacgtttg	cgccaagact	ttcggccagc	tctccaatct	gaaggtaggc	19620
cttgagagag	agcagtccaa	ggggctgtga	gtgcatgctt	gtgtttgtat	ttagcttgct	19680
ttccatgggg	tatcgattgc	atttgcagta	gtatgagccc	ccggttgggg	atagtgggta	19740
tggattccgc	ctggcttttg	ccacttctag	ctctttgact	ttggacaagt	gacttccctt	19800
ctcctgattt	tcttctgaat	aataaaaaaa	ttaggggttt	ggactagaag	attaggtgaa	19860
actccctgct	agcctgtgat	ttttgtgctt	ttaagaaaaa	caccattctg	aaaacatgaa	19920
gatttcttct	ttttaagact	gtcttgatgc	ttttcttaag	atatttgcat	caacacttga	19980
gtcttggagc	agaaatgtta	ggtctcagag	ccagcttgag	agcagagcta	acacatgtgg	20040
cttcttccca	ggtccacctg	agagtgcaca	gtggagaacg	gcctttcaaa	tgtcagactt	20100
gcaacaaggg	ctttactcag	ctcgcccacc	tgcagaaaca	ctacctggta	cacacgggag	20160
aaaagccaca	tgaatgccag	gtgcgcagta	ttttctgggt	agaccttctg	acctttgtag	20220
aaaatgtctg	tgagtcaccc	tcccatgtcc	tatatagccc	gtagttaaag	ccaacaccag	20280
attctgcgtt	gtcccatcct	ggactgatgg	cactatggtc	cttcccagta	ctttgtatct	20340
gctgatgact	tgagatggca	cagccagctt	ccagtgggtg	ggaaaatggt	aggggaaata	20400
aacagcccct	cgtgtgctgt	gtgcccacat	cccccgttt	gcttaatacc	acactggagg	20460
tgccacaagg	aggcttctca	cctcctaggt	tgctgggcgt	tggccggtaa	gcctgcccct	20520
cccgttggca	actcttaatc	ttctggcctt	cctgtctccc	ttccctgctg	tctctccc	20580
ctacactgta	ggtctgccac	aagagattta	gcagcaccag	caatctcaag	acccacctgc	20640
gactccattc	tggagagaaa	ccataccaat	gcaaggtgtg	ccctgccaag	ttcacccagt	20700
ttgtgcacct	gaaactgcac	aagcgtctgc	acacccggga	gcggccccac	aagtgctccc	20760
agtgccacaa	gaactacatc	catctctgta	gcctcaaggt	tcacctgaaa	gggaactgcg	20820
ctgcggcccc	ggcgcctggg	ctgcccttgg	aagatctgac	ccgaatcaat	gaagaaatcg	20880
agaagtttga	catcagtgac	aatgctgacc	ggctcgagga	cgtggaggat	gacatcagtg	20940
tgatctctgt	agtggagaag	gaaattctgg	ccgtggtcag	aaaagagaaa	gaagaaactg	21000
gcctgaaagt	gtctttgcaa	agaaacatgg	ggaatggact 31	cctctcctca	gggtgcagcc	21060

tttatgagtc atcagatcta cccctcatga agttgcctcc cagcaaccca ctacctctgg 21120 tacctgtaaa ggtcaaacaa gaaacagttg aaccaatgga tccttaagat tttcagaaaa 21180 cacttatttt gtttcttaag ttatgacttg gtgagtcagg gtgcctgtag gaagtggctt 21240 gtacataatc ccagctctgc aaagctctct cgacagcaaa tggtttcccc tcacctctgg 21300 aattaaagaa ggaactccaa agttactgaa atctcagggc atgaacaagg caaaggccat 21360 atatatat atatatata ctgtatacat attatatata cttatttaca cctgtgtcta 21420 tatatttgcc cctgtgtatt ttgaatattt gtgtggacat gtttgcatag ccttcccatt 21480 actaagacta ttacctagtc ataattattt tttcaatgat aatccttcat aatttattat 21540 acaatttatc attcagaaag caataattaa aaaagtttac aatgactgga aagattcctt 21600 gtaatttgag tataaatgta tttttgtctt gtggccattc tttgtagata atttctgcac 21660 atctgtataa gtacctaaga tttagttaaa caaatatatg acttcagtca acctctctct 21720 ctaataatgg tttgaaaatg aggtttgggt aattgccaat gttggacagt tgatgtgttc 21780 attcctggga tcctatcatt tgaacagcat tgtacataac ttgggggtat gtgtgcagga 21840 ttacccaaga ataacttaag tagaagaaac aagaaaggga atcttgtata tttttgttga 21900 tagttcatgt ttttccccca gccacaattt taccggaagg gtgacaggaa ggctttacca 21960 acctgtctct ccctccaaaa gagcagaatc ctcccaccgc cctgccctcc ccaccgagtc 22020 ctgtggccat tcagagcggc cacatgactt ttgcatccat tgtattatca gaaaatgtga 22080 agaagaaaaa aatgccatgt tttaaaacca ctgcgaaaat ttccccaaag cataggtggc 22140 tttgtgtgtg tgcgatttgg gggcttgagt ctgggtggtg ttttgttgtt ggtttttgtt 22200 gctttttttt ttttatttt tttaatgtca aaattgcaca aacatggtgc tctaccagga 22260 aggattcgag gtagataggc tcaggccaca ctttaaaaac aaacacacaa acaacaaaaa 22320 acgggtattc tagtcatctt ggggtaaaag cgggtaatga acattcctat ccccaacaca 22380 tcaattgtat tttttctgta aaactcagat tttcctcagt atttgtgttt ttacatttta 22440 tggttaattt aatggaagat gaaagggcat tgcaaagttg ttcaacaaca gttacctcat 22500 tgagtgtgtc cagtagtgca ggaaatgatg tcttatctaa tgatttgctt ctctagagga 22560 gaaaccgagt aaatgtgctc cagcaagata gactttgtgt tattctatct tttattctgc 22620 taagcccaaa gattacatgt tggtgttcaa agtgtagcaa aaaatgatgt atatttataa 22680 atctatttat accactatat catatgtata tatatttata accacttaaa ttgtgagcca 22740 agccatgtaa aagatctact ttttctaagg gcaaaaaaaa aaaaaaaaa aaaagaacac 22800 tcctttctga gactttgctt aatacttggt gacctcacaa tcacgtcggt atgattgggc 22860 accettgeet actgtaagag accetaaaac ettggtgeag tggtggggae cacaaaacaa 22920 ccagggagga agagatacat catttttag tattaaggac catctaagac agctctattt 22980 tttttttgcc actttatgat tatgtggtca cacccaagtc acagaaataa aaaactgact 23040

ttaccgctgc	aatttttctg	ttttcctcct	tactaaatac	tgatacatta	ctccaatcta	23100
ttttataatt	atatttgaca	ttttgttcac	atcaactaat	gttcacctgt	agaagagaac	23160
aaatttcgaa	taatccaggg	aaacccaaga	gccttactgg	tcttctgtaa	cttccaagac	23220
tgacagcttt	ttatgtatca	gtgtttgata	aacacagtcc	ttaactgaag	gtaaaccaaa	23280
gcatcacgtt	gacattagac	caaatacttt	tgattcccaa	ctactcgttt	gttctttttc	23340
tccttttgtg	ctttcccata	gtgagaattt	ttataaagac	ttcttgcttc	tctcaccatc	23400
catccttctc	ttttctgcct	cttacatgtg	aatgttgagc	ccacaatcaa	cagtggtttt	23460
attttttcct	ctactcaaag	ttaaaactga	ccaaagttac	tggcttttta	ctttgctaga	23520
acaacaaact	atcttatgtt	tacatactgg	tttacaatgt	tatttatgtg	caaattgtca	23580
aaatgtaaat	taaatataaa	tgttcatgct	ttacc			23615